EA-87-02 Publications

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ENVIRONMENTAL ASSESSMENT BOARD

VOLUME:

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DATE:

Thursday, April 13th, 1989

BEFORE:

M.I. JEFFERY, Q.C., Member

E. MARTEL, Member

A. KOVEN, Member



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EA-87-02

HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

> IN THE MATTER of the Environmental Assessment Act, R.S.O. 1980, c.140;

> > - and -

IN THE MATTER of the Class Environmental Assessment for Timber Management on Crown Lands in Ontario;

- and -

IN THE MATTER of an Order-in-Council (O.C. 2449/87) authorizing the Environmental Assessment Board to administer a funding program, in connection with the environmental assessment hearing with respect to the Timber Management Class Environmental Assessment, and to distribute funds to qualified participants.

Hearing held at the Ramada Prince Arthur Hotel, 17 North Cumberland St., Thunder Bay, Ontario, on Thursday, April 13th, 1989, commencing at 8:30 a.m.

VOLUME 91

BEFORE:

MR. MICHAEL I. JEFFERY, Q.C. Chairman MR. ELIE MARTEL MRS. ANNE KOVEN

Member Member

APPEARANCES

```
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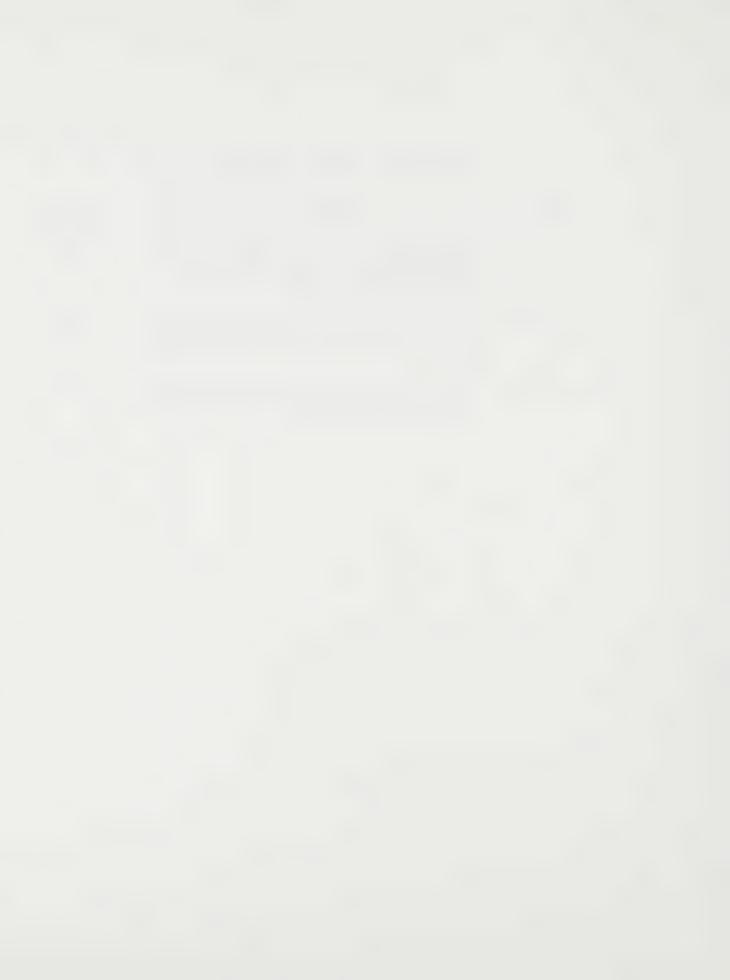
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1
        --- Upon commencing at 8:30 a.m.
                      THE CHAIRMAN: Thank you. Be seated,
 2
 3
        please.
 4
                      Would you mind waiting one moment, Mr.
        Hanna, until the court reporter is set up.
 5
 6
                      Very well.
 7
                      MR. HANNA: Good morning, Mr. Chairman.
 8
        After we finished yesterday I carefully reviewed my
9
        cross-examination and I went back and did my very best
10
        to ensure that the questions remaining are as focused
        as possible on the evidence that this panel has
11
12
        presented.
13
                      I couldn't help yesterday reflecting on
14
        what had gone by on my first day of the job and I
        realized that towards the end of my cross-examination
15
        yesterday I was much less disciplined than I had hoped,
16
        and I aplogize for any time I might have wasted of the
17
        Board. It was only when I went home; that is, my room,
18
19
        and fell down on my bed and couldn't move that I
        realized how hard this job was, and I will try to
20
21
        endure as best I can today.
                      I was lying there in my bed and I have to
22
        admit that I couldn't help but have Mr. Hynard's words
23
        flashing in front of me and his words -- Mr. Hynard's
24
        words about his green forester. I kept seeing this
25
```

1	image flashing in front of me and I realized it was me.
2	I realize I have got a lot to learn on this new job and
3	I have taken to heart Mr. Hynard's suggestion that you
4	have to work longer and harder, and I can assure you
5	that I worked very hard last night to try to make
6	things more proper today.
7	Thank you for the advice, Mr. Hynard.
8	MR. HYNARD: I should have followed it
9	myself last night.
10	DAVID LOWELL EULER, PETER PHILLIP HYNARD,
11	JOHN TRUMAN ALLIN, RICHARD BRUCE GREENWOOD,
12	CAMERON D. CLARK, GORDON C. OLDFORD, Resumed
13	derben e, olibrendy nedamed
14	CONTINUED CROSS-EXAMINATION BY MR. HANNA:
15	Q. If we can continue on where we left
16	off yesterday. I would like to go to your evidence
17	where you provide an indication of how you go about
18	selecting silvicultural prescriptions, and I believe
19	you listed them in your evidence and I refer you to
20	page 13046, Volume 78, and I believe you describe there
21 .	how one or the considerations.
22	I believe you described there the
23	considerations that a forester a unit forester would
24	use in deciding upon a silvicultural prescription; is
25	that correct?

1	MR. HYNARD: A. Yes, that's co	rrect.
2	Q. Does this represent a compr	ehensive
3	list of the criteria that you would consider?	
4	A. You are referring to 13048	of the
5	transcript?	
6	Q. I am sorry, no. On 13 i	t starts
7	on the bottom of 13046 at line 23 and it goes	over to
8	13047 to line 5. I can read it to you there:	
9	"There are five considerations	though
10	that the forester unit fores	ter - and
11	I might include the company for	esters in
12	the same category - use in sele-	cting
13	that in making that choice.	The first
14	one being silvical characterist	ics; the
15	second one, terrain site and st	and
16	conditions; regeneration method	; past
17	results; and economics. And I	will cover
18	them one by one."	
19	A. Yes. I can't say that that	is
20	necessarily exhaustive. Those are certainly	the
21	principal factors or principal considerations	for
22	normal operating areas, yes.	
23	Q. And what is not included in	that
24	list?	
25	A. Well, I can't think offhand	what is

not included. 1 2 Q. Okay. Now, could we look at the EA for a minute. I would like to look at page 36. 3 A. Oh, market conditions isn't in that 4 5 list on the top of 13047. O. I was assuming that was under 6 7 economics, but that is fine if you want to make that a 8 separate one. Was that not what is included in economics or is that a separate consideration? 9 10 A. I believe earlier in the evidence I had separated it out but, you are right, it is an 11 12 economic factor. 13 O. Could we then to turn to the Class 14 EA. 15 THE CHAIRMAN: What page? 16 MR. HANNA: Page 36. 17 Q. Mr. Hynard, have you read the section 18 nine three one? 19 MR. HYNARD: A. Yes, I have. In fact, I 20 believe I contributed towards its writing about five or 21 six years ago. I must admit I didn't refer to it when 22 I wrote the evidence. I am surprised actually at how 23 similar it is. 24 Q. Yes. Well, you obviously are being 25 reasonably consistent. I note here that there is seven

1	factors and in your evidence you gave us five factors?
2	A. Mm-hmm.
3	Q. Can you tell the Board which factors
4	are on this list that are not in your evidence?
5	A. Yes, there is only one, and that is
6	concerns of other Crown land resource users.
7	Q. I believe there is another; is there
8	not? I believe you gave five in your evidence and
9	there is seven here.
10	A. Oh, it is just a matter of how you
11	group them. I think with regard to objectives of
12	management, that is certainly mentioned in the evidence
13	if you go through on choice of species being grown.
14	General conditions of the forest region,
15	terrain sites, stand conditions, the actual site
16	conditions, soil, topography, climate, I believe that
17	was covered. Existing condition, age and quality of
18	the timber resource, that is covered under stand
19	conditions; species of trees in the mix, that is
20	another stand condition.
21	Q. Well, I am looking back at your
22	evidence. This isn't really that critical, but I
23	didn't see the objectives of management mentioned and I
24	understand that you are saying that it may perhaps be
25	there implicitly in silvical characters but I don't see

1	it mentioned?
2	A. Not in silvical characteristics, but
3	certainly it is there implicitly, yes.
4	Q. Now, in the on page 37 there of
5	the Class EA, the second last bullet is in italics.
6	What does that mean?
7	A. Concerns of other Crown land resource
8	users?
9	Q. No, the fact that it is in italics?
10	A. I don't know.
11	Q. Mr. Clark, do you know why it is in
12	italics?
13	MR. CLARK: A. I may be incorrect, but I
14	believe it's where amendments were included in the
15	document.
16	MR. FREIDIN: I believe it is the
17	amendment that was made in the June '87 version.
18	MR. HANNA: Q. So that this was
19	originally not included in the list of factors; is that
20	correct?
21	MR. HYNARD: A. Well, I now understand
22	that to be the case.
23	Q. So it appears that inadvertently or
24	otherwise both you and the Ministry in preparing the
0.5	

original version of the Class EA left out the concerns

1	of other reso	urce users, at least as a criteria, in
2	selecting sil	vicultural harvest system?
3		A. The concerns of other Crown land
4	resource user	s is not left out, and I am sure our
5	evidence spea	ks to that.
6		With regard to the choice of a
7	silvicultural	harvest system, in normal operating areas
8	it is not one	of the principal considerations
9	for the simpl	e reason, as Mr. Clark read to you on
. 0	normal operat	ing areas, that they are areas in which
.1	there is not	another resource use or user who would be
. 2	negatively af	fected. I think it was something along
.3	those lines.	Yes,
. 4		"For the remainder of the area of
.5		operations where no particular resource
. 6		features, land uses, or values which
.7		could be negatively affected by timber
.8		management operations are identified.
.9		The range of acceptable silvicultural
20		practices which can be employed are
21		determined by practicing professional
22		foresters."
23		That is on page 16 of Exhibit 4. So what
2.4	I am trying t	o point out is that in normal operating
5	areas, for the	ose reasons, that second last bullet now

in italics is not one of the principal considerations. 7 THE CHAIRMAN: If there were any other 2 users out there affected it would be an area of 3 4 concern? 5 MR. HYNARD: Yes. THE CHAIRMAN: It would go under that 6 7 process? 8 MR. HYNARD: Yes, that's right. 9 MR. HANNA: O. Perhaps we can turn to 10 the Red Lake management plan on page 31. I believe 11 it's one of the pages in Exhibit 512. 12 Now, under -- this is the section on 13 timber management objectives. And I believe there are 14 seven management objectives listed in this plan, and 15 they go by section No. 4.8.1 through to 4.8.7. 16 MR. HYNARD: A. (Nodding affirmatively) 17 Q. Now, it's my understanding that 18 either explicitly or implicitly the unit forester in 19 arriving at his prescription takes those management 20 objectives into consideration; is that correct? 21 A. Yes, that's correct. 22 Okay. I want to go back then to this Q. 23 issue that we were dealing with yesterday in terms of 24 the -- excuse me, Mr. Chairman, I am sorry. 25 I would like to go back to the situation

1 we were talking about yesterday with the silvicultural 2 groundrules in the Red Lake Crown Management Plan. 3 Now, I believe for this one particular working group 4 that we were looking at, SB2, we decided there was in 5 the order of 36 possible combinations. Do you recall 6 that? 7 Α. I recall that. 8 So that in this particular situation Q. 9 the forester is faced with -- for this one, simply just 10 this one working group which is, as we have said, is 11 one of a number of working groups in this particular 12 area, is faced with making fairly complicated choice. 13 He has, according to my count, 12 14 objectives that he is trying to satisfy, which are the 15 seven that we have identified here in the management 16 plan plus the objectives that you have given in your 17 evidence. 18 THE CHAIRMAN: What is the bottom line on 19 the point, Mr. Hanna? MR. HANNA: 20 The bottom line is simply this, Mr. Chairman: I am attempting to show that this 21 decision is an extremely complicated one, and also that 22 23 an event in that decision is what we would term tradeoffs and I am trying to --24 THE CHAIRMAN: Would you admit to those 25

two propositions? 1 MR. HYNARD: Yes, sir. 2 THE CHAIRMAN: You have got your point. 3 MR. HANNA: Okay. Thank you very much, 4 5 Mr. Chairman. Mr. Hynard, you have indicated in 6 0. 7 your qualifications that you had some knowledge of financial analysis in developing decision-making tools 8 for silvicultural systems; is that correct? 9 10 MR. HYNARD: A. For silvicultural treatments, yes, that's correct. 11 12 Q. Mr. Hynard, are you familiar with 13 what is called multi-criteria or multi-objective decision-making tools? 14 15 A. In a very general way. 16 So would you say that you are 0. 17 familiar with the literature related to this field in 18 particular, that which relates to silvicultural and 19 optimization of silvicultural systems? 20 A. I am not familiar with literature on 21 multi-objective management, no. 22 Q. No, I was referring specifically to 23 silvicultural systems here. 24 A. I am sorry, I am going to ask you to 25 repeat, Mr. Hanna.

1	Q. Certainly. Are you familiar with the
2	extensive literature that deals with multi-criteria
3	decision making for silviculture and optimization of
4	silvicultural systems?
5	A. No.
6	Q. Well, given our recent discussion
7	just about the choices that a forester is faced with in
8	making these sort of decisions, would you agree that
9	this is a multi-objective and multi-criteria decision
.0	that the forester is faced with?
1	A. Yes.
.2	Q. And would you also agree that the
.3	choice of an optimal silvicultural system, given the
. 4	multi-objectives and a large number of combinations for
.5	the clearcut system alone, is a very complex problem?
.6	A. No, not exceedingly so. It's not a
.7	problem that I find especially complex.
.8	Q. Mr. Clark, did you want to answer
.9	that question also?
20	MR. CLARK: A. I think Mr. Hynard has
21	answered it satisfactorily.
22	THE CHAIRMAN: Would you consider it
23	complex or difficult for any unit forester, not just
2.4	yourself?
) E	MP HYNAPD. No I don't

MR. HANNA: Q. Would you say that is 1 2 generally the view of foresters? 3 MR. HYNARD: A. It would depend on how you phrase the question to them. If the question was 4 5 phrased along the lines: Is your task at selecting a silvicultural system so complex that you have 6 difficulty doing it with the tools that you have 7 available to you, he would say: I don't have a 8 9 problem. 10 If you were to ask him: Is this so complex that you would have difficulty explaining it 7.7 12 briefly to someone with no background information, he 13 would say: Yes, it is that complex. It really depends 14 on how you phrase the question. 15 But you are aware that there is, 16 particularly south of the border, an extensive amount 17 of effort being expended trying to deal with this very 18 issue? 19 Α. No. 20 0. I don't recall in Panel 7 -- or Panel 21 8's evidence discussion of any decision analysis tools 22 that are available to the silvicultural -- or to the 23 unit forester to deal with these silvicultural 24 decisions. The one tool that I have seen come forward 25 so far is the work that you did in terms of the

1	financial model. Are there any others that you are
2	aware of?
3	. A. In Ontario?
4	Q. Yes, that's what I am interested in.
5	A. Decision-making tools with regard to
6	financial analysis or with regard to other aspects of
7	forestry?
8	Q. I think we have just agreed that this
9	is I believe you just agreed that it is a
10	multi-objective problem, and I am asking are there any
11	other tools that is available to a silvicultural
12	forester
13	A. Oh, yes.
14	Qto make these sorts of decisions?
15	A. Yes, there are.
16	Q. Okay. What are they? Comparable
17	I am thinking something comparable to your financial
18	model might be able to deal with broader array of
19	factors?
20	A. Well, yes, AWOSFOP, for example, is a
21	tool. It is a tool used in assisting the forester in
22	age-class regulation decisions. I am having true
23	difficulty this morning especially thinking of what
24	other tools there might be. I am sure after break I
25	can come up with a list of tools that are used by

O. Well, let's talk about tools that you 2 use, and I believe you said you aren't sure you are 3 going to use AWOSFOP? 4 AWOSFOP, that's right, I may not. 5 So what tools have you used? 6 0. 7 Α. Well, I would use manual tools in my 8 case. I would do it manually. We are talking here 9 about age-class regulation. The reason that I am unable to use AWOSFOP easily is part of my unit is 10 11 managed on an uneven-aged basis. 12 I am aware that there are modeling tools 13 for uneven-aged systems, and I have certainly read the 14 American literature on uneven-aged management and gueue 15 concept of age-class distribution and models using that 16 with American applications, I have read those. 17 However, they don't fit my case neatly 18 either and I don't have any difficulty in doing 19 stocking class distribution regulation for uneven-aged systems in Minden. I mean, I can come up with it, 20 21 fine, it's not necessary that I have a new tool to do 22 that. 23 Q. Okay. Can we move on then to another 24 fact that -- another point that you raised in your evidence and it's referring to a comment that you made 25

foresters in making decisions.

1	on page 13097, and I will just read you the sentence
2	that I am interested in there. It's lines 11 to 13.
3	"I think that a requirement to do so"
4	and I believe this is referring to maybe I should
5	read the whole paragraph to give it the context.
6	I think to document the rationale not
7	to provide a better product I am
8	sorry, I have read that incorrectly.
9	"I think to document that rationale would
10	not provide a better product at all. I
11	think that a requirement to do so would
12	not recognize the foresters practicing on
13	those units are professionals."
14	And I am interested in the relationship
15	between being a professional and making those
16	decisions. Why would it not recognize the fact that
17	they are professionals or why would it violate them as
18	professionals if they had to document the rationale for
19	their decisions?
20	A. I don't think it would violate it, it
21	simply would fail to recognize it.
22	Q. Fail to recognize what?
23 .	A. That the foresters are professionals,
24	they are engaged in a scientific and professional area
25	in which they are competent, in which they have

qualifications to perform those tasks, in which they 1 are able to do so without a documentation, a record 2 documentation of all of their decisions and steps along 3 4 the way. 5 O. I believe we had agreed just a moment ago that these decisions, however, do involve 6 7 tradeoffs? 8 A. Yes, they do. Just to clarify, Mr. Hanna, that statement on page 13097 that you just read, 9 10 I was talking about the documentation of silvicultural decisions in normal operating areas. Just to make that 11 12 perfectly clear. 13 Q. Yes, I appreciate that. Through 14 these questions we are talking about normal operating areas, that's where my questions are coming from. 15 16 A. And with regard to an earlier 17 question that you had, multi-criteria decision-making, 18 in my answer to you: Was I aware of multi-criteria 19 decision-making tools that are available or being used 20 or developed in the United States, my answer was no. I 21 interpreted your question to be multi-objective 22 decision-making tools. 23 Q. I believe I said both, multi-criteria 24 and multi-objective.

A. I -- in my answer I interpreted

1	multi-objective.
2	Q. Okay. Well, how about answering it
3	then for multi-criteria?
4	A. Sure, yes. I am aware of
5	multi-criteria decision-making tools.
6	Q. Are you familiar with the recent
7	international conference that was held in November of
8	1988 by the U.S. Forest Service dealing with
9	multi-criteria decision models in silvicultural .
10	systems?
11	A. No, I'm not. I guess there is one
12	that I am familiar with. William Hyde had a
13	multi-objective decision-making tool. He is an
14	American forester from the Pacific Northwest. He wrote
15	a book entitled I am just looking for my friend
16	here is just looking for the title.
17	Q. Timber management decision making or
18	something along those lines?
19	A. No, it includes other objectives too.
20	Catherine, do you have reference No. 1 to Panel No. 12
21	here?
22	MS. BLASTORAH: (Handed)
23	MR. HYNARD: Yes. The title of the book
24	was: Timber Supply in Land Allocation and Economic
25	Efficiency, and I believe Mr. Hyde did look at

multi-objective decision-making in that book. MR. HANNA: O. Have you read that book? 2 MR. HYNARD: A. Yes. 3 Did you find it useful? 4 0. Well, yes, I did. 5 I found it useful too. What I am 6 0. 7 interested in is -- I believe Mr. Hyde is an economist, 8 I believe a forest economist? A. That is my impression. It is about 9 10 almost -- its about ten years ago that I read the book, 11 almost ten years ago. 12 Q. And I believe he was setting out, if you will, a fairly explicit way to go about these 13 decisions. Would you agree with that? 14 A. Yes, they were very explicit, as I 15 16 recall. 17 Q. And you are right, his book was 18 prepared some years ago. Are you aware that there has 19 been any further advances since that book was written? 20 A. I am not aware of what advances have 21 been made since that time, no. 22 Q. Now, Mr. Hyde sets out in that book certain procedures to follow through in helping unit 23 24 foresters make decisions: is that correct? 25 A. He does set forth procedures, methods

1	of analysis in coming to decisions in forestry and land
2	allocation. Land allocation, there I mean for various
3	uses.
4	Q. Yes. One last question I have and
5	that is simply: Do you know of any use by the Ministry
6	or any comparable tool that the Ministry uses for those
7	types of decisions?
8	A. No.
9	Q. Okay. Can we go then to a matter
10	that you raised in your evidence, and I believe Mr.
11	Freidin asked you the question this is at page
12	12942, line 24. I believe Mr. Freidin asked you the
13	question:
14	"Are silvicultural prescriptions
15	nonetheless developed"
16	Let me check the page, this doesn't make
17	sense to me. I'll just read it.
18	MR. HYNARD: It's Volume 77, Catherine.
19	MR. FREIDIN: When I read what I asked it
20	doesn't make sense either.
2,1	MR. HANNA: Mr. Freidin will be happy to
22	know that it is because my typist left out some words,
23	it wasn't because of your sentence structure.
24	MR. HYNARD: I have it, 12942.
25	MR. HANNA: Q. Okay. And he asked the

1 question: 2 "Are silvicultural prescriptions nonetheless developed for areas which 3 have been designated because of 4 non-timber values areas of concern?" 5 I am not really -- want to go through the 6 7 whole answer. I think, as you will see, it's a fairly extended response to a very fairly simple question, but 8 9 what I am particularly interested in is the last part of the response and I believe you were talking about 10 this issue of where there is not sufficient market 11 12 demand for the wood and the difficulties that can raise for a unit forester in trying to get maximum 13 14 utilization of the wood. Do you recall that? 15 A. Yes, I do. 16 And I believe -- rather than read the 17 whole -- read all of the record -- read all of the 18 transcript back into the record, what you are saying is that in situations where there isn't sufficient market 19 20 demand some trees are left standing? 21 That could be the result, yes. 22 And I believe your actual terminology 0. 23 was in those cases where the number of trees that --24 that non-marketable type represent a minor portion of 25 the stand it is possible to remedy the situations by

1	means of silvicultural treatment?
2	A. Yes.
3	Q. Okay. I am interested in that word
4	remedy. Remedy suggests to me something that is wrong.
5	Would you agree?
6	A. Yes, it does.
7	Q. Perhaps you can just expand on this
8	concept that there is something wrong with leaving
9	trees standing?
10	A. Yes. In certain situations those
11	trees may interfere with the establishment of the next
12	crop and in that case it requires some correction, it
13	requires a remedy or it may do so, it may be advisable
14	to do so, it may be worthwhile, in which case the
15	situation may be remedied by a silvicultural treatment.
16	Q. Right. So what you are saying is
17	from a timber management from a timber production
18	point of view there could be something wrong, it would
19	be better not to have them there?
20	A. Exactly.
21	Q. I believe later shortly thereafter
22	Mr. Martel asked you a question with respect to these
23	trees, the residual trees I think is what they were
24	termed when you spoke to them before, and I am looking
25	on page 12967 of Volume 77.

1	I believe Mr. Martel was asking you about
2	the fact that these trees can lead to further problems
3	and I believe your response was:
4	"There is no value in leaving them, there
5	is a cost in removing them."
6	Is what correct?
7	A. Yes, that's correct.
8	Q. I believe Mr. Freidin picked up on
9	that later and wanted to clarify what you meant by
. 0	value, and I think he did a reasonable job of it in
.1	making clear that when you said no value you were
. 2	speaking strictly from a forester's perspective?
.3	A. That's right. From a timber
4	production point of view, I believe, was the
.5	conclusion.
. 6	Q. Mr. Hynard, at what point and who
.7	makes the decision as to whether these residual trees
.8	will be tramped or not?
.9	A. Well, again, we are not in an area of
0.0	concern here, we are in a normal operating area, and
:1	that decision would be made by the unit forester. He
.2	would be the individual prescribing silvicultural
13	treatments, they would be contained in the
2.4	silvicultural groundrules and go through the timber
2.5	management planning process that was described

1	yesterday.
2	Q. Okay. In a situation when you are
3	faced with residual trees, before the trees could be
4	authorized to be removed is there any requirement that
5	you consult with the biologist in your office?
6	A. No, the consultation over that
7	particular matter would have been done at the time of
8	the preparation of the management plan. That normal
9	operating area it would have been determined that
.0	there was not another resource value or use that would
.1	have been adversely affected by the silvicultural
. 2	groundrules being developed, otherwise the biologist at
3	that time would have raised that flag.
4	Q. So the answer is: No, you would not
.5	consult with the biologist before making that decision?
.6	I am talking now the operational
.7	decision. I appreciate there is a timber management
.8	planning process that precedes this, but we have now
.9	got to the point we have got a silvicultural
0	prescription for the site having made that decision.
1	A. Yes. I would say that only
2	indirectly, and I say indirectly because the
3	silvicultural prescriptions are made by the forester
4	not by the biologist. However, the biologist is on
5	that planning team, he watches that process. If he

wishes to raise a flag over that, that is a concern, 1 2 then, yes, he would be consulted with. Q. Okay. But what I am trying to get at 3 is -- maybe I don't understand how the planning team 4 operates. It is my understanding the planning team was 5 6 put together to prepare the plan and once the plan is 7 prepared, essentially at that point, the forester, the 8 unit forester carries it forward. Does the planning 9 team continue on in the actual implementation of the 10 plan? 11 A. No, the planning team would be 1.2 disbanded unless an issue arose like an amendment that 13 required them to reassemble. 14 Q. Okay. Just to summarize then, you 15 are saying that this decision, as far as these residual 16 trees, will be dealt with at the timber management 17 planning process. And where that would show up in the 18 timber management plan? 19 Where would which show up? Α. 20 The treatment of those -- the 0. 21 residual, any residual standing trees in a particular 22 working group? 23 A. It would show up in silvicultural 24 groundrule for normal operating areas. 25 Q. Thank you.

1 The way that would work, if the Α. 2 biologist felt that these residuals were a limiting 3 factor or an important factor for wildlife, he would 4 raise that concern. If, on the other hand, there were 5 all kinds of dead suitable trees, chicots, snags, 6 elsewhere as a result of, let's say, for example, 7 spruce budworm going through, I am sure Ontario has 8 more snags at the present time than it ever had before 9 for that simple reason. 10 The fact that these residual trees, which Dr. Euler stated earlier, could have a wildlife value, 11 12 the fact that they could have doesn't mean that they are -- they are needed by those wildlife species or 13 14 that they are going to be used or of value. If that is not a concern because he has got more snags in the bush 15 16 than he can use, then he wouldn't raise that as a concern, he wouldn't be upset by that. And the 17 treatment of tramping would be prescribed by the 18 forester and carried out by him. We don't have a 19 shortage of snags. 20 Q. I say this in all respect, Mr. 21 Hynard, but I can't see you qualified as an expert on 22 23 wildlife and snags? A. Oh, not wildlife, but I know a lot 24 25 about snags.

O. Well, the questions that I am asking 1 are relating to -- while I believe we have an 2 overabundance of snags, what were you talking about in 3 terms of overabundance? 4 5 A. I am talking about the supply of dead 6 and dying trees. 7 0. For what? 8 Well, we could ask our wildlife man. 9 I was planning to but I just wanted Q. 10 to make sure that I get it clear from you what you were 11 referring to. 12 Well, snags are used by woodpeckers 13 for one thing. I know that because I have seen it. 14 They get riddled with holes and then there is all kinds 15 of creatures, cavity nests, that dwell in those holes. 16 Snags -- fine, squirrels. Snags do have a value. 17 Q. All right. Dr. Euler, would you 18 please tell the Board those situations from a wildlife 19 perspective in which, in your view as an expert, those 20 trees should be removed and in those situations the 21 trees should be left behind? 22 DR. EULER: A. You want me to list? I 23 am really not sure what you want me to do. Q. All right, that's fair. Let's first 24 25 of all deal with the situation where, in your view, it

1	would be of some value for the residual trees to
2	remain.
3	I am asking you if you could give the
4	Board an example of a situation where, from a wildlife
5	perspective, there would be some value in leaving those
6	residual trees standing?
7	A. Well, okay. I guess the first
8	situation would be if a biologist felt that in his
9	management area he was there was a low number of
.0	snags and he would want more left. Does that answer
.1	the question?
. 2	Q. That's a start. I think we all
.3	appreciate the difficulty of knowing when we have got a
. 4	low number of snags, and I am trying to think of do
.5	you think that would be an infrequent occurrence or is
.6	that frequent occurrences?
.7	Is there some value to wildlife in
8	leaving those trees standing? Is there a possibility
.9	that you would not want the trees to stand? From a
0	wildlife perspective only, so
1	A. No, any dead tree will be used by
2	something some time. I guess it's a question of
:3	perspective and trading off values.
4	I can see the situation where the
E	wildlife biologist would agree with a forester and save

Well, in this unit we have plenty of snags and, 1 therefore, there is no particular problem, and that 2 seems to me to be a very reasonable situation. And I 3 can see other times where he might say to the forester: Look, we are short of snags, let's leave some. would see that as kind of a dynamic interchange between 6 7 the forester and the biologist and they work that out 8 together. That is the way it should be and I think it 9 occurs that way most of the time. 10 Now, in my judgment, over the province of Ontario right now, if you were to say: How are we 11 12 doing with supply of snags, the answer is: In most 13 places there is not a problem. I brought this up in my 14 evidence, not so much because there is a problem now, 15 but I am concerned about the future and that we not let 16 it become a problem ten years from now. And we need to 17 be think along these lines right now so that ten years 18 from now it isn't a problem. But in my best judgment I 19 don't think it's a problem right now. 20 MR. HYNARD: Well, maybe I can say a few 21 words about the continuous supply of snags. I mean, 22 right now we have a very good supply of snags as a

Down on my unit I have a tremendous supply of

result of spruce budworm infestations, jack pine

snags resulting from tent caterpillar coupled with

23

24

25

budworm.

1	drought. The alleged acid rain effect.
2	In fact, it is sometimes hard to say for
3	sure we are winning the battle of keeping crop trees
4	growing well. As a result of all those factors that
5	cause tree mortality, there is another major factor
6	that causes tree mortality constantly and that is the
7	normal self-thinning process that occurs in stands.
8	A stand that starts off at several
9	thousand stems per hectare will only end up at maturity
10	at several hundred stems per hectare, and the reason
11	for that is natural mortality that we will hear more
12	about in Panel 12. It is a normal self-thinning
13	process and one of the products of that natural process
14	is dead trees. It occurs all the time.
15	Q. Dr. Euler, you mentioned that in
16	making this decision you are faced with trading off, it
17	was the practical matter that we just can't afford to
18	have snags all over the province simply to face a few
19	birds.
20	MR. FREIDIN: That is not what he said.
21	MR. HANNA: Q. Then I will ask you this,
22	Dr. Euler: Does the vertical structure of the habitat
23	affect the abundance of wildlife?
24	DR. EULER: A. Yes, it does.
25	Q. Could you explain for the Board what

vertical structure means? 1 2 A. Well, wildlifers have found that in studying wildlife habitat and wildlife interactions in 3 the forest the animals that are there often use different parts of the forest based on the height. 5 6 for example, warblers sort of divide up the trees and 7 some feed at the top, some feed at the middle, and some 8 feed at the bottom. 9 And some birds, for example, feed near 10 the tops of the canopy but they nest in the understorey 11 just because that is the way they have evolved over time and, therefore, the vertical structure of the 12 13 forest is important because the more structure that is 14 there the more niches that are there for the wildlife 15 species present. 16 0. Would residual trees increase the vertical structure of the habitat? 17 18 Α. Yes, in many cases they would. 19 Is there a case that they wouldn't? 0. 20 Α. I can't think of one. There might be 21 one, I just can't think of it. 22 Q. What you think of ... So, Mr. Hynard, if I can go back to you for a minute. It appears to me 23 24 then that we are faced with this problem even at the 25 prescription level of making tradeoff decisions. Would

1	you agree with that?
2	MR. HYNARD: A. Well, yes, I certainly
3	agree that there are tradeoffs to be made in our
4	decisions. It seems unavoidable.
5	Q. I agree with you wholeheartedly
6	there, I just want to make sure that you agree that
7	that is the case?
8	A. Yes. I would point out where there
9	is a matter of significance, of some significance, of
10	some importance that the area becomes an area of
11	concern and that the tradeoffs are made through that
12	process.
13	But even in a normal operating area I
14	mean, of course life is full of tradeoffs and the
15	forester does that too when he prescribes a treatment
16	on site preparation affects the number of trees he
17	can get in the ground and he can get more coverage at
18	higher costs and things like that. Those are all
19	tradeoffs too, sure. I agree in that sense.
20	Q. I just want to make sure that you are
21	clear. I am not suggesting in any way that in any of
22	the questions I have put to you that there are not
23	traceoffs to be made in this world or that there are
24	not tradeoffs to be made at every level.
25	A. Yes, yes.

1	Q. Mr. Hynard, I am going to ask you to
2	think back to Panel 8. I believe you were here for
3	parts of Panel 8?
4	A. No, I don't believe so.
5	Q. Okay. Perhaps I will just tell you
6	what happened in Panel 8. Mr. Straight was asked a
7	question about weights and rates. Have you any
8	knowledge of that?
9	A. Weights and rates?
10	Q. Yes.
11	A. Well, I don't know. If you could
12	give me the context
13	Q. Sure.
14	Ain which he
15	Q. Sure. I will give you the example
16	that was used in that particular circumstance. I
17	believe it was suggested that as an example, simply a
18	hypothetical example, that one cutting pattern might
19	affect moose twice as much as another. And in this
20	case it was suggested that the rating - rating is the
21	operative word, so keep that in mind - for the high
22	impact pattern would be twice that for the other with
23	respect to moose.
24	A. (Nodding affirmatively)
25	Q. Now, Mr I am not just sure who

the witness was that brought it into evidence, but this 1 2 concept of magnitude, duration, intensity and 3 frequency; you are familiar with that? 4 Α. Yes. 5 Would you say that in this particular 6 example that I have just given you, in terms of the 7 cutting pattern and its effect on moose, that if you 8 took the magnitude, duration, frequency and intensity 9 of that impact that you would end up with a rating for 10 that impact? Well, I suppose it's possible to 11 12 develop a formula using those criteria. 13 The only reason I raise that is I 0. just want to try and make our jargon the same if we 14 15 can, to try to put in context the magnitude, intensity, duration and frequency, and it seems to me that those 16 17 provide some description of the physical impact or the quantity of the impact. Would you agree with that? 18 19 The nature of the impact and it's --It describes several elements of the nature of 20 yes. the impact.. Yes. 21 O. Okay. We continued on with Mr. 22 Straight and asked him about the question of weights, 23 and I believe the example that was used there dealt 24

with moose and wood and it was suggested that wood

25

might be twice as significant as moose or twice as 7 important as moose and, therefore, that would be the 2 weight that would be attributed to wood relative to 3 4 moose. I am not suggesting that is the weight, but just dealing with the concept if we could, please. 5 6 A. Yes, I understand the concept you are 7 describing. 8 Q. Now, thinking back to your --9 thinking back to your question -- to your statement 10 before that we talked about, professionals, and how it wouldn't recognize the professionals by asking them to 11 12 rationalize their decisions - so that is what this is relating to - would you agree that professional 13 14 experts, individuals with considerable experience and 15 knowledge, particularly people with local experience 16 and knowledge, are essential to develop reasonable 17 rates? And use that word rates very carefully in the 18 context that we have just defined it. 19 To answer that would be to presume Α. 20 that it would be possible to develop a rating system 21 using those criteria that would have reasonable 22 application for a purpose. And I would not want to, in 23 answering that question, necessarily agree with that 24 presumption. Now, in answer to your question, yes.

Q. Okay. Well, I am glad to have a yes.

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1
        I just want to make sure that what you are saying yes
 2
        is the same thing I am interpreting yes, and that is
 3
        that you need local experience and knowledge to
 4
        evaluate the physical impact, the magnitude, intensity,
 5
        duration, frequency? There is a lot of value in having
 6
        local knowledge in being able to develop that
7
        assessment?
 8
                      Α.
                          Yes.
 9
                      THE CHAIRMAN: Does the forester acquire
10
        that local knowledge by being in the area?
11
                      MR. HYNARD: Well, he would acquire part
        of it by being in the area, but he wouldn't necessarily
12
13
        have to be in that area in order to understand those
14
        factors.
15
                      The forester who moves from Wawa to
        Chapleau or from Timmins to Gogama, the nature of the
16
        forest and their interactions and those factors would
17
        be similar and, similarly, the moose in Kenora, I
18
19
        suppose, are pretty similar to the moose in Timmins.
20
        Would that be true?
21
                      DR. EULER: In most cases.
                      THE CHAIRMAN: How do you tell a Kenora
22
23
        moose?
                      MR. HYNARD: By the K I think on the
24
        side.
25
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DR. EULER: That's right. It would be a 1 2 C if it were from Cochrane. 3 MR. HANNA: O. So I think what we have agreed to is that the accurate prediction of different 4 5 alternatives, in this case different silvicultural 6 harvest systems in terms of the physical impacts in terms of just the rate as I have used it, requires 7 8 considerable technical expertise. You would agree with 9. that? 10 MR. HYNARD: A. Keeping in mind my qualification over that presumption, yes. 7.7 12 Q. Again keeping in mind your 13 qualification, but can you answer to me the role that 14 you see that professionlism plays in developing 15 appropriate weights? Be very careful in responding 16 there, the difference that we've just described. 17 A. Well, yes, we do that now. We make 18 tradeoffs, we weight things, we rate things. The 19 planning team evaluates those other land uses and land -- and forest uses and forest values in arriving 20 21 at timber management planning decisions and they bring 22 to that planning team professionalism and they bring 23 knowledge and expertise, and it is important. 24 THE CHAIRMAN: Where are you going in 25 this, Mr. Hanna, in terms of --

1	MR. HANNA: Certainly what I am
2	attempting to demonstrate to this witness is that at
3	the both in the generation of silvicultural
4	groundrules and in the generation and in the actual
5	decisions in terms of silvicultural prescriptions that
6	are within those groundrules, the unit forester is
7	faced with making what may be the real tradeoffs that
8	have to be made in terms of forest management.
9	THE CHAIRMAN: I think he is admitted
10	that; have you not?
Ll	MR. HYNARD: Yes.
12	MR. HANNA: And I am concerned about the
L3	ability or the resources that are available in terms of
14	assigning those weights, and I would like to pursue
L5	with him what his view is of weights and how you
L 6	generate those weights and what they represent.
L7	THE CHAIRMAN: Well, why don't you just
18	ask him that question.
19	MR. HANNA: Q. Mr. Hynard?
20	MR. HYNARD: A. Well, I understand your
21	question to be: How do we use the weights and rates to
22	arrive at decisions and make those tradeoffs?
23	Q. Well, I think you have given us a
2.4	fairly extended discussion in your evidence in terms of
25	how you go about making decisions, I am interested in

how you go about developing these weights.

The weight along the lines of the Α. example you gave in the case where the wood was -- had twice the weight of the moose, those decisions are based subjectively. They are subjective decisions made by a planning team after full consideration for all of the values and uses and conflicts that have been identified during the course of a timber management plan, preparation.

They are done subjectively, they are not done by a model, they are not done by a calculation, they are not done numerically. I am well aware, for example, in Hyde's example of optimization of different land uses, where it can be brought to a common denominator, and Hyde was an economist, and his common denominator was the dollar.

I am going to give a round about answer to your question here, but where there is that common denominator and, as Mr. Oldford says, everyone understands the value of a buck, a dollar is a great measure and a land owner who secures revenue from timber sales and secures revenue from other land uses like hunting leases, recreational uses, perhaps lakeshore development, he now has one common denominator that he can tradeoff and measure.

1 He can measure how much that moose is 2 worth to his income through his hunting leases and he 3 can, and he does it subjectively too, evaluate what the 4 weighting is between them and arrive at a decision. 5 Land owners do that down in Minden, they 6 don't do it with a model, they do it in their heads. 7 They know that large private land owners in Minden 8 don't cut to the shoreline because they recognize the 9 development potential of that shoreline and its resale 10 value. The common denominator is the dollar. It makes 11 it a lot easier. It's more difficult when you have other 12 13 land uses and values to which a dollar cannot be 14 assigned. I am sure -- and I am going to give you a 15 very hypothetical case here, I don't have an instance 16 in mind. But let's take the case of a tourist outfitter on a lake and timber coming down to the lake 17 and the outfitter can be potentially affected by those 18 timber operations, we do not calculate the value of the 19 timber either standing or at the mill gate or in 20 manufactured products in comparison to the value of 21 that camp and the revenues that that outfit --2.2 outfitter generates. We don't do that. 23 We attempt to accommodate that outfitter. 24 We attempt to ensure that he is not adversely affected, 25

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or at least that it is minimized, and that that
 1
 2
        constraint of protecting him on timber operations is
        also minimized. It is done subjectively by a planning
 3
        team after they have given full consideration to those
 4
        values and uses that have been identified.
 5
 6
                      Your question was: How do they set the
 7
                  They set them subjectively based on their
        weights?
 8
        knowledge, expertise, experience, and the input of
9
        those interested parties.
10
                          Thank you, Mr. Hynard.
                                                  What I am
        interested in at this particular time, and I
11
12
        appreciate -- and let me tell you I don't think there
13
        is an easy answer to this question, but the timber
14
        management planning process is laid out and it's
15
        explained how that is dealt with.
16
                      I think what you have just described is
17
        in fact the essence of the timber management process
18
        and how it's dealt with; is that correct?
19
                      Α.
                          I think that is the essence, or part
20
        of it anyway.
21
                          Okay. What I am interested in is the
22
        fact, and I think you have agreed -- is that we have to
23
        make tradeoffs at all levels down through the process
24
        not just -- you have to make tradeoffs at every point?
25
                      Α.
                          Sure, every point.
```

1	Q. And there are tradeoffs in arriving
2	at the silvicultural groundrules, for example?
3	A. Yes.
4	Q. And there are tradeoffs to be made
5	once we have silvicultural groundrules and actually
6	even applying those silvicultural groundrules?
7	A. Sure, I can think of lots of
8	examples.
9	Q. I don't need examples, just yes is
10	fine. And in fact I believe yesterday we established
11	that for one working group there is an option of 36
12	possible choices that we might be faced with when we
13	have to make those decisions in terms of tradeoffs?
14	A. No, those 36 potential combinations
15	did not involve a tradeoff, they involved criteria.
16	Q. Well, perhaps we will go back then.
17	THE CHAIRMAN: Just hold on a second,
18	Mr. Hanna. Unless I am missing something, we started
19	off with the idea that there would be a planning team
20	to make the tradeoff decisions in the planning process
21	and it would be at that stage that other values would
22	be recognized and if thought appropriate would become
23	areas of concern and dealt with under another type of
24	process.
25	Presuming that there were no areas of

concern identified and presuming, therefore, that you are under normal operations and you would not be adversely affecting other interests, or else it would have come up in the planning process, you are now down to the operational decisions that have to be made by the forester in the field, and at that stage of the game presumably there are not other values out there that would be adversely impacted or they would have been previously identified.

So the decisions being made by the forester in the field at that level are being made subjectively based on the forester's experience and expertise and his knowledge of the local conditions.

And if what you are getting at is: Where is the input at that stage from others, it appears to me that it is not at that stage that the input is necessary because it would have been prescreened out at an earlier stage.

Now, I don't know, maybe I have misinterpreted some of what has been said.

MR. HYNARD: Well, exactly. And in the case of silvicultural groundrules for the Red Lake Crown unit that we were looking at, the SB2 working group, it describes it as a lowland, poorly drained, wet area. It -- that kind of land with black spruce, relatively pure black spruce on it, that kind of land

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1
        is well-known not to be good moose habitat. Moose
 2
        don't like to stand up to their knees in water usually,
 3
        or so I understand.
 4
                      Now, I presume in that case that the
 5
        biologist did not have a concern about moose given the
 6
        size and dispersion of the cut and the Moose
 7
        Guidelines. He did not raise a concern. If he had
 8
        raised a concern it would be somewhere in that plan.
 9
                      MR. HANNA: Mr. Chairman, your comments
10
        raise two matters to me. The first is this - and I
77
        really look to perhaps Mr. Freidin, whoever, to give me
12
        his direction - and that is: At what point is
13
        appropriate to discuss the areas of concern planning
14
        approach?
15
                      THE CHAIRMAN: I would think panel No.
16
        16.
17
                      MR. FREIDIN:
                                    15.
                      THE CHAIRMAN: 15.
18
19
                      MR. HANNA: Herculean Panel 15. Well, I
        quess the problem I have is that I am faced in the
20
21
        issue that we have been through some many times at this
        hearing, the chicken and the egg. If I get to Panel 15
22
        and I was able to demonstrate to the Board that in fact
23
        the area of concern process was perhaps flawed and that
24
        there are in fact concerns outside the area of concern
25
```

1	philosophy that the Ministry has brought forward, I
2	then am faced with the problem of dealing with the
3	impacts that are outside the areas of concern and I
4	don't have this panel available to me.
5	THE CHAIRMAN: But you have the
6	opportunity to cross-examine that panel at that time
7	and call your own evidence. And if the Board perceives
8	that there is somehow an unfairness visited upon you,
9	then we might consider a recall of certain witnesses.
10	Mr. Freidin?
11	MR. FREIDIN: The planning process will
12	be dealt with in Panel 15. If you want to ask
13	questions about what adverse environmental effects
14	there may or may not be in normal operating areas as a
15	result of harvest, this the panel to ask those
16	questions.
17	THE CHAIRMAN: But that's normal
18	operations, we are not dealing essentially with areas
19	of concern; are we?
20	MR. FREIDIN: Oh, yes.
21	MR. HYNARD: Yes, yes.
22	MR. FREIDIN: Any adverse environmental
23	effects
24	THE CHAIRMAN: Relating to harvest?
25	MR. FREIDIN:that Mr. Hanna wants to

1	ask that relates to harvest, then he should ask this
2	panel those questions.
3	MR. HYNARD: Mr. Hanna so far has been
4	careful in stating that he is talking about normal
5	operating areas and not areas of concern, so all of my
6	answers have been in that vein.
7	MR. HANNA: That's correct. I guess, Mr.
8	Chairman, the concern I had was in your statement, was
9	that I got the sense that because you are in a normal
10	operating area that there are no concerns and,
11	therefore, if there are any concerns they will be
12	identified and dealt with through the area of concern
13	planning process.
14	I believe I had indicated through my
15	questions with Dr. Euler yesterday that in fact there
16	is the potential for effects on moose in normal
17	operating areas, and I will go back to Dr. Euler and
18	speak to him about that.
19	So I would submit to the Board that in
20	fact there are impacts, potential impacts, outside of
21	areas of concern, and that is all I am pursuing with
22	this witness, and I am trying to explore how that is
23	dealt with.
24	THE CHAIRMAN: Okay, proceed.
25	MR. HANNA: Mr. Chairman, unfortunately

my tiredness is setting in here, can I just have a 1 2 moment just to get my thoughts back? THE CHAIRMAN: Do you want to take the 3 break at this time? 4 MR. HANNA: It would certainly help. 5 THE CHAIRMAN: 20 minutes. Thank you. 6 7 --- Recess taken at 9:45 a.m. 8 --- Upon resuming at 10:25 a.m. 9 THE CHAIRMAN: Thank you. Be seated, 10 please. 11 MR. HANNA: O. Mr. Hynard, before the 12 break we were talking about a number of things and I think you said - I think it's fair to say - that my 13 questions to you related strictly to normal operations? 14 15 MR. HYNARD: A. Yes. And, Mr. Hanna, with regard to those normal operating areas and the 16 17 fact that there are effects upon, for example, wildlife is contained within our evidence. It's not our 18 19 evidence that no effects occur within normal operating 20 areas. 21 Dr. Euler gave evidence that moose, for 22 example, could be affected, birds, I recall mice, could be affected by harvest in normal operating areas. 23 It's our evidence that those effects, given their frequency, 24 25 intensity, duration and extent, are not significant in

1	normal operating areas; that is, where some land use or
2	value has not been identified that would be negatively
3	affected.
4	That is our evidence, and if you want to
5	cross-examine Dr. Euler, for example, on those effects
6	in normal operating areas, you would obtain more
7	information on those effects. It's not our evidence
8	that nothing happens there, that there are no tradeoffs
9	whatsoever.
10	Q. All right. So we are saying that
11	there are effects in normal operating areas but they
12	are not significant; correct?
13	A. That is our evidence.
14	Q. Now, I want to touch on this issue of
15	significance, and maybe we will just go through just a
16	quick little exercise, just what in fact significance
17	entails. And I would actually like to take you even to
18	a statement that Mr. Freidin used in his opening
19	comments, and that is that it is the Ministry's
20	position that there are no significant adverse impacts
21	associated with harvesting. Do you recall that?
22	A. I don't recall the exact words, but I
23	. am prepared to take your word for it.
24	Q. I can give you the reference.
25	A. No, that's fine, that's fine.

```
O. He did use the word significant
1
        adverse and that is what I am really interested in.
 3
                          Yes, yes, I do recall.
 4
                          I believe also we talked about
        yesterday -- well, in the Class EA on page 146. The
 5
        statement is there also which says that:
 6
 7
                      "The environmental effects expected with
 8
                      the silvicultural groundrules will be
9
                      acceptable."
10
                      Do you see where it says that?
                          Yes, I do, line 28.
11
                      Α.
12
                          Now, what I would like to get your
13
        view on is what's the relationship between acceptable
14
        and significant?
                          Do they mean the same?
                          Well, the words don't mean the same,
15
                      Α.
16
        no. Significant is something --
17
                          So we can have an impact that was not
                      0.
18
        significant and was not acceptable?
19
                      A. Given the hypothetical, I suppose
20
        it's possible to have an effect that is significant;
21
        that is, it is significant in that it has some meaning,
22
        but it may be acceptable because of a tradeoff. I
23
        think though when -- we should get down to a little
24
        more specifics rather than semantics.
25
                      Q. Well, we are going to get very
```

1 specifics but I think we have to deal with semantics 2 first and I just want to make sure we are talking in 3 the same language. I just want to deal with semantics 4 and then we will deal with specifics. Now, I want to 5 understand what you mean by significant. 6 Well, without --Α. 7 The word, I just want to understand 0. 8 that word. 9 I guess the word means -- significant Α. 10 would mean of some importance, of some -- measurable 11 and it has some importance and I think importance with respect to what? In our case, I would say important 12 13 with respect to our objectives. And to other forest users and other forest values, it would be important 14 15 with respect to that other use or value. Of course here we are talking about 16 17 normal operating areas. And Dr. Euler, I recall from his evidence, and he will correct me if I'm wrong, that 18 with regard to significance he stated that wildlife 19 could be affected -- are affected by harvest 20 21 operations. I recall a statement that a couple of moose in 130 hectare cut could be affected, but that 22 the moose population would not be adversely affected, 23 therefore, that would not be significant. 24 Am I on the right track, Dr. Euler? 25

1	DR. EULER: Yes, you are. See, I would
2	define this I would say if timber harvest prevents
3	the Ministry from achieving it's wildlife objectives
4	then that is significant.
5	Q. Then, Mr. Hynard, could we turn then
6	to this word on page 146 and can you explain to me what
7	you mean by acceptable, given the definition Dr. Euler
8	has just given us in terms of significant?
9	MR. HYNARD: A. Yes. I would say in
10	that case my sense is that acceptable means we are
11 .	prepared to accept it, we are prepared to live with
12	that environmental effect; it is acceptable.
13	THE CHAIRMAN: Does it also entail the
14	notion that in living with it it will allow you to meet
15	your objective?
16	MR. HYNARD: Oh, absolutely.
17	MR. HANNA: Q. So that the acceptability
18	of the environmental effects is determined in relation
19	to these objectives; is that fair to say?
20	MR. HYNARD: A. Yes, that is fair to
21	say.
22	Q. Are there environmental effects for
23	which the Ministry does not have objectives?
24	A. Yes, there would be or there could
25	be. I am thinking there of water quality which is a

1 mandate of the Ministry of the Environment not Ministry 2 of Natural Resources.

However, fish habitat -- we have an objective with regard to fish habitat, so our interest extend over both resource development and outdoor recreation. So we have -- we have a very broad range of objectives. There are objectives of other users though that may not be included within MNR objectives and that is taken into account of course in the management planning process.

Q. Well, I appreciate that. I am trying to come to grips with these terms and the terms that I am trying to come to grips with is in terms of acceptable. And I heard the definition that you used in terms of -- or the rule, if you will, and perhaps I shouldn't use that word, but what you would use in terms of deciding on acceptable environmental effects when you have objectives would be to look at those effects and see if they would prevent you from being able to achieve those objectives. If they didn't prevent you from achieving those objectives they would be deemed acceptable.

A. Well, clearly, if they did not they would be unacceptable. I wouldn't limit it to saying though that if it did not impinge upon our ability to

1	meet our own objectives that we would encompass all
2	those effects as acceptable. I am sure that our
3	interests extend beyond our program objectives.
4	No, in that word acceptable there is a
5	broader meaning.
6	THE CHAIRMAN: Wouldn't you say, Mr.
7	Hynard, that one of the objectives of the Ministry is
8	to take into account the objectives of other users?
9	MR. HYNARD: Yes.
10	THE CHAIRMAN: Therefore, if there was an
11	objective that was not included in a Ministry program
12	objective, you would not be meeting your objective if
13	you ignored the interest of other users as well?
14	MR. HYNARD: Yes, and I think our record
15	on that is clear.
16	DR. EULER: In another case, you might
17	have an unacceptable objective, for example, if a
18	particular pattern of timber harvest gave a hunter an
19	unfair advantage, say, over a moose because of some
20	reason, that might be unacceptable from sort of an
21	ethical point of view even though you could still meet
22	your numerical objective.
23	MR. HANNA: Q. Okay. Now, given your
24	response to the Chairman's question there, Mr. Hynard,
25	it seems to me that this statement in terms of

1	acceptable environmental effects is applied generically
2	across the area of the undertaking with respect to
3	silvicultural groundrules; is that correct?
4	MR. HYNARD: A. That statement is
5	applied generically; yes, it is.
6	Q. So given what the Chairman had just
7	mentioned to you, to make that statement means that you
8	have evaluated and incorporated in whatever way that is
9	done all those other users' objectives in arriving at
.0	that conclusion?
.1	A. Yes. Well, certainly all of their
.2	interest in Crown land we have, yes.
.3	Q. Now, we are saying this generically
4	across the area of the undertaking and in fact before
.5	many of these silvicultural groundrules in fact have
.6	been developed; is that correct?
.7	A. No, that is not correct. The reason
8	that I can say that, that it considers the interests
.9	and objectives of other forest users, the reason I can
20	say that is that they are invited to participate in the
21	management planning process and advise us of their
22	interest and advise us of those other values. So they
23	are taken into account, yes.
24	There are several stages, Mr. Hanna, as
5	you know for the public and interested parties to

participate in that management planning process. 1 first stage they -- is prior to the formation of the 2 silvicultural groundrules. The second stage is after, 3 4 when they can actually look at it. 5 O. Let's go back to this word significant adverse because that is where I have been 6 7 trying to come from in this whole thing. 8 It seems to me that in those two words, or what I call three operative elements, are the 9 10 elements that we have to take into consideration and they are, first, the magnitude of the impact; secondly, 11 12 the direction of the impact, in other words whether it is a positive impact and you were increasing or 13 14 decreasing, just in physical terms; and the third thing 15 is the value of the resource being impacted. 16 Can you agree with that? 17 A. Yes. There are other factors, too. 18 I think the duration of the impact, the extent of the 19 impact, the frequency of its occurrence, 20 Q. I didn't want to go through the words. I accept those that are in there in terms -- I 21 22 have used the word rating before to encapsulate those 23 four elements. If you prefer I will use the word rate 24 or magnitude, which just seems to be more descriptive, 25 but I will -- whichever you prefer to use.

1	A. No, you pick the word, that is fine
2	with me. I will accept magnitude.
3	Q. Okay. Now, we talked before about
4	this example of the cutting pattern affecting moose,
5	whatever, and I would ask you: In your view do you
6	think moose have a positive value to society?
7	A. Oh, I believe so, absolutely.
8	Q. Good. Okay.
9	A. And Dr. Euler testified to that.
10	Q. Okay. And if we had this example you
11	talked about where the cutting pattern would have
12	affected the moose twice as much as another, would you
13	agree that we can, in this instance, say that the
14	cutting pattern one had twice as much impact as cutting
15	pattern two?
16	A. Yes, and that is what you gave me in
17	your hypothetical example.
18	Q. Right. And
19	A. I am not sure of now, you told me
20	the effect was twice as great. I am not sure whether
21	you meant that it affected their population two-fold.
22	Q. Okay, let's talk about just numbers
23	of moose, it is easier.
24	A. Numbers?
25	Q. Let's just talk straight numbers.

1	A. Really, I would like Dr. Euler to
2	deal with the moose questions here.
3	Q. Sure, let's talk to Dr. Euler.
4	A. Do you mind, Dr. Euler?
5	DR. EULER: No, not at all.
6	THE CHAIRMAN: You are the moose man;
7	right?
8	DR. EULER: Yes, and I am getting bored
9	not having any questions so give me some.
10	MR. HANNA: All right, Dr. Euler
11	MR. HYNARD: I hate him answering the
12	tree questions, so
13	MR. HANNA: Well, I am sure he will refer
14	those back to you, Mr. Hynard.
15	Q. Okay, you have heard what I have said
16	and I think you can appreciate what the answers are
17	there. Can you just agree with what Mr. Hynard has
18	said?
19	DR. EULER: A. No.
20	Q. So in that situation, if we are just
21	looking at moose, we can say the impact of cutting
22	pattern one is twice as significant as cutting pattern
23	two with respect to moose?
24	DR. EULER: A. Okay.
25	Q. Now, we didn't say we said

1	significant, we didn't say whether it going to be a
2	positive or negative. I didn't say whether it's going
3	to increase the moose or decrease the moose?
4	A. That's right.
5	Q. So we have to know the direction in
6	which the impact is going?
7	A. Right.
8	Q. So if I tell you that cutting pattern
9	one reduces the moose population, we would say that the
10	impact of cutting pattern one is twice as significant
11	and it is negative?
12	A. Okay.
13	Q. Now, Dr. Euler, perhaps this is going
14	to liven up your life a little bit more, I am going to
15	ask you to talk about black flies.
16	A. I am happy to talk about anything.
17	Q. I prefer not to talk about black
18	flies, but perhaps just for a brief moment here we will
19	talk about black flies.
20	Now, let's assume this cutting pattern
21	affect is black flies - I realize this is rather
22	hypothetical in its extreme, but let's assume it's
23	black flies - and let's conclude that the effect of the
24	cutting pattern has the same impact on the black fly
25	population, one increases it twice as much as another?

1	A. Okay, sure.
2	Q. And so we can go through the same
3	exercise and we conclude that to get twice as much
4	twice as significant an impact and let's say cutting
5	pattern one increases the black fly population?
6	A. Right, okay.
7	Q. Now, would you say black flies are a
8	positive or negative social value?
9	A. Well, as a biologist, I am not going
10	to say either one. They serve as food for lots of
11	wildlife, they may bother a lot of people.
12	Q. Let me ask you not as a biologist,
13	let's ask as somebody walking in the woods.
14	A. Well, a lot of people don't like
15	them, that's true.
16	Q. All right. Let's assume just for now
17	they have got a negative I think a lot of people
18	might agree that black flies have a negative social
19	value?
20	A. Okay, okay.
21	Q. Now, is it not fair then that if we
22	look at the significance of the impact of cutting
23	pattern one with respect to black flies, that we would
24	end up with, again, a significant impact in terms of
25	black flies only. Cutting pattern one will reflect

1	black flies only; correct?
2	A. Okay.
3	Q. But because black flies have a
4	negative value we would end up with a positive impact?
5	A. That is what you are saying?
6	Q. That is what I am asking you. I
7	realize this seems a little trivial, but I just want to
8	go through this the exercise.
9	A. Okay.
10	Q. What you are saying is if you have
11	if cutting pattern one reduces the population of black
12	flies, it can't reduce the population of moose. In one
13	respect it's a negative impact with respect to moose
14	A. Yes.
15	Qbecause moose have a positive
16	value?
17	A. Right, yes.
18	Q. But it reduces the impact of black
19	flies as a positive impact?
20	A. Okay, all right, I will go along with
21	you.
22	Q. Okay. Now, the difficulty becomes
23	then when we start trading off black flies against
24	moose?
25	A. Not particularly difficult for me,

but if you want to establish that that is okay. 1 O. It's not particularly difficult for 2 3 you? 4 Α. No. 5 Okay. Could you explain to me then? Q. Well, we have some fairly clear moose 6 7 objectives and so we would deal with the impact of this 8 cutting pattern on the moose objectives. Now, as far 9 as I know we don't have any black fly objectives and so I wouldn't be terribly concerned. 10 11 THE CHAIRMAN: Are you planning any? DR. EULER: Well, no, as a matter of fact 12 13 we are not. 14 THE CHAIRMAN: So you would choose in favour of the moose? 15 DR. EULER: Well, yes, of course, and so 16 17 it wouldn't be particularly difficult. Now, if the 18 Ministry had a black fly objective at some point in the 19 future, then it might become more difficult. 20 See, I think this is meaningless unless 21 you relate it to objectives. 22 MR. HANNA: Okay. 23 DR. EULER: Totally meaningless without 24 hanging it on what are you trying to do. 25 MR. HANNA: Absolutely, I agree with you

1	wholeheartedly. I think there are some people who
2	would want to do something about black flies but I
3	won't pursue that.
4	Q. I think the question perhaps let's
5	not use black flies, let's use something that the
6	Ministry does have objectives for. Let's just try and
7	keep it within the wildlife context if we could.
8	DR. EULER: A. Okay. Good.
9	Q. What other wildlife species do you
10	have objectives for?
11	A. Deer, bear, in some cases some of the
12	furbearers like beaver or marten.
13	Q. Let's take bear.
14	A. Okay.
15	Q. Now, in this hypothetical example we
16	could increase this bear population and decrease the
17	moose population?
18	A. Right.
19	Q. So we had have to make some sort of
20	tradeoff?
21	A. That's right.
22	Q. And that tradeoff is based upon
23	societal values; is that correct?
24	A. I think it's based on Ministry
25	objectives.

1	Q. I appreciate that, but I am asking
2	you: What do those objectives reflect?
3	A. Society values, yes.
4	Q. And in this example those society
5	values are captured by what factor?
6	A. Well, the objective that the Ministry
7	has established for moose or bear, whatever those
8	objectives are in the particular land use or whatever
9	other wildlife creatures we have objectives for.
10	THE CHAIRMAN: When you have competing
11	objectives and you have determined that the impact is
12	going to be significant for either one
13	DR. EULER: Then you have to go one way
14	or the other, sir.
15	THE CHAIRMAN: and you have to go one
16	way or the other, I suppose a second option is not
17	affecting either of them, not cutting?
18	DR. EULER: Sure, that would be an option
19	and then you would have other objectives immediately
20	involved, wood objectives.
21	MR. HYNARD: And that sort of thing
22	happens, it happens all the time. A value is
23	identified that would be negatively affected by timber
24	management operations, it is an area of concern, they
25	are evaluated by the planning team and a decision is

1	made, and often times that results in a no-cut.
2	DR. EULER: It's a very difficult process
3	of setting realistic and thought through objectives.
4	It takes a lot of hard, hard work because if the
5	objectives are really thought through well, then you
6	minimize these conflicts because you take into account
7	the fact that sometimes you just can't have both of
8	whatever.
9	THE CHAIRMAN: And presumably you would
10	be governed by other factors as well; for instance, if
11	one of the things you ran into, say within an area of
12	concern, is an endangered specie
13	DR. EULER: Oh, yes, yes.
14	THE CHAIRMAN:you would then be sort
15	of shut out of even having to make the choice
16	DR. EULER: Yes, yes.
17	THE CHAIRMAN:because of the
18	endangered species legislation or something like that?
19	DR. EULER: That's right. So it's always
20	a complicated series of decisions and you are always
21	having to trade off something against something else.
22	That is what makes it challenging of course and fun,
23	but at the same time difficult.
24	MR. HYNARD: And sometimes it isn't that
25	difficult, sometimes it's very straightforward.

1	DR. EULER: That's right. If you have an
2	eagle nest, say, then the decision is relatively
3	simple.
4	MR. HYNARD: That is easy.
5	MR. HANNA: Q. Okay, Mr. Hynard
6	THE CHAIRMAN: This has to lead
7	somewhere, Mr. Hanna.
8	MR. HANNA: It certainly does, sir, and I
9	can tell you
10	THE CHAIRMAN: We have decided that it's
11	difficult and we have decided that tradeoffs have to be
12	made.
13	MR. HANNA: Right.
14	THE CHAIRMAN: But I would like to direct
15	you to proceed with your questioning down some path to
16	some defineable end.
17	MR. HANNA: Okay. I can tell you the
18	defineable end that I am going on, sir.
19	THE CHAIRMAN: Okay.
20	MR. HANNA: What I am trying to explore
21	there is the types of tradeoffs that are embedded in
22	coming to grips with the silvicultural groundrules,
23	where those tradeoffs will be presented to the public
24	in the timber management planning process that is

brought forward, and how that input of the public will

be dealt with by the Ministry in arriving at those 1 2 rules. 3 THE CHAIRMAN: Now, are you talking area 4 of concern or are you talking normal harvesting 5 operations, or what area, because there is an overlap 6 between this panel and Panel 15 in that respect? 7 MR. HANNA: Well, Mr. Chairman, I am 8 talking at the present time strictly with normal 9 operating areas. 10 THE CHAIRMAN: And is your question basically where in the process are concerns of the 11 12 public taken into account? Is that one of your 13 questions? 14 MR. HANNA: I think I understand quite well where the concerns of the public are taken into 15 16 account, it is how they are taken into account and how that is documented and presented to the people. That 17 18 is my concern. THE CHAIRMAN: Okay. Why don't we deal 19 with that specifically. Ask that question to whatever 20 21 witness you want. MR. HANNA: Q. Mr. Hynard, I would like 22 to refer you to your -- I don't need to refer you to 23 evidence that we have talked about before, I can give 24 you the exact point in your evidence if you wish, that 25

1	you I believe we talked about it fairly extensively
2	yesterday and that is that you are proposing that the
3	rationale for the groundrules not be documented?
4	MR. HYNARD: A. That's right.
5	Q. Now, what I believe we have shown is
6	that there are tradeoffs potentially made outside of
7	the areas of concern in both in silvicultural terms
8	and in terms of silvicultural versus non-timber values?
9	A. Yes, we have said that, we have said
10	they are not significant. We have described what those
11	effects are and their significance in our evidence.
12	THE CHAIRMAN: And we have your evidence
13	clearly on the record as to why you don't feel it
14	should be documented.
15	MR. HYNARD: Yes.
16	THE CHAIRMAN: Others may have different
17	views?
18	MR. HYNARD: Yes.
19	THE CHAIRMAN: And that, Mr. Hanna, with
20	respect, is what you could introduce through your own
21	witnesses at the appropriate time if you don't feel it
22	is appropriate, but we have this panel's evidence or
23	the witnesses on this panel's evidence as to why they
24	don't think it's appropriate Mr. Hynard doesn't feel
25	it's appropriate.

1	MR. HANNA: And I am just making sure
2	that when we do bring that evidence forward, sir, that
3	it does address and we have got a full understanding of
4	the position that these people have brought forward.
5	THE CHAIRMAN: Well, I think on the issue
6	of documentation of rationale, I don't think that it's
7	going to serve the Board much of a purpose to rehash
8	what we rehashed yesterday.
9	MR. HANNA: No, I am not planning to go
10	into that at all.
11	THE CHAIRMAN: Because I think Mr.
12	Hynard's evidence or his position on that point is
13	quite clear.
14	MR. HANNA: I agree.
15	THE CHAIRMAN: Unless of course, Mr.
16	Hynard, you want to change anything from what you said
17	yesterday or previously?
18	MR. HYNARD: No, thank you.
19	MR. HANNA: I wasn't intending to do
20	that, I am sorry, Mr. Chairman.
21	Q. Now, we talked about this matter of
22	the residual trees, remember we were talking about
23	residuals and whatever?
24	MR. HYNARD: A. Yes.
25	Q. And I believe you mentioned at that

time that residual trees -- or Dr. Euler said to us 7 2 there is potential value in residual trees in terms of 3 wildlife? 4 Α. Yes. 5 But in fact he couldn't think of an 0. 6 example where the residual trees would not have a 7 wildlife value to them? 8 A. Yes, he said that the tree would 9 probably be used by some kind of creature, an insect -or I presume an insect or some kind of living creature. 10 11 MR. FREIDIN: The evidence was that he couldn't think of situation where the residuals 12 13 wouldn't add to vertical structure. 14 MR. HANNA: Q. Perhaps I will ask Dr. Euler then the question. Dr. Euler, can you give me an 15 16 example where leaving residual trees would not add to 17 the potential of the habitat for wildlife? 18 DR. EULER: A. No. 19 Now, Mr. Hynard, my understanding was 20 that you said this would be dealt with through the 21 timber management planning process. If someone had a 22 concern they would come in and express it and whatever, 23 and that would be dealt with in that process; is that 24 correct? 25

MR. HYNARD: A. Yes.

1	Q. Now, if someone was to come in and
2	say they had a concern about residual trees, would that
3	become an area of concern?
4	A. No, it be a concern though and it
5	would be taken into account. Anyone who comes into the
6	planning process and raises a concern, that is
7	documented, what that concern is and our response to
8	that concern, how if and how and if if and how it
9 .	will be incorporated, how that concern will be
. 0	addressed, or if it will be addressed, and the reason
.1	for that. You raise a concern with me in my timber
.2	management plan, you get that. You get that back.
.3	Q. Okay. And so someone comes in and
4	says they want the residual trees to stand, how would
.5	that get carried through in the process?
. 6	A. Well, let me give you an example.
.7	That concern was raised to me by my fish and wildlife
.8	supervisor with regard to den trees, trees suitable for
.9	denning by wildlife.
20	DR. EULER: Cavity nesting species.
21	MR. HYNARD: Thank you. I don't believe
22	that he felt there was a scarcity of such suitable
23	trees for denning. Racoons, for example, are quite
2.4	mobile and they can go over the next hill and find
5	another hallow tree. However, it was taken into

1 account.

It was taken into account and I attempted then to minimize the effect on timber management operations. I wanted to accommodate him where I could and still have a minimal effect upon timber management. And so the identification and reservation or protection of such trees requires individual tree identification. It is only possible where trees are being evaluated individually for harvest.

It's not possible to go out into a vast area or any area that is being clearcut and identify such trees, but we have tree markers evaluating trees individually in selection cutting and in commercial thinning. They were given instructions as to what is a good denning tree and told to retain those trees where they were not in strong competition with a saw timber crop tree, and criteria for evaluating that also was given to them.

It doesn't cost us any extra money to do
it because we already have tree markers there
evaluating tree by tree, and it is not hurting timber
productivity because the trees that are being retained
for those purposes are not in strong competition with a
saw timber crop tree. So it did not hurt timber
management at all, and provided some additional den

1 trees for wildlife purposes. 2 Now, I don't believe that there is a 3 scarcity, an inadequate supply of suitable denning 4 trees on the Minden crown unit, and I don't believe he 5 felt so either. But he raised that concern and that is 6 how it was accomodated. 7 Now, it was not accommodated in areas 8 that were being allocated for clearcutting because that 9 would require extra cost, incredible effort to go out 10 and identify those trees and then protect them or for other operations in which it's impossible to provide 11 12 that measure of protection. 13 In other words, we made an attempt to accommodate that concern keeping into it -- taking into 14 account that we wanted to minimize the effect of that 15 16 type of constraint on timber management also. So there is an evaluation process made by human minds in that 17 spirit of integrated resource management. 18 Similarly, in that spirit of IRM, we no 19 20 longer have wildlife managers chopping down trees to provide wildlife habitat because they were adversely 21 affecting timber production. It is now integrated in 22 this timber planning process. That is an example of 23 24 how it occurs. MR. MARTEL: You indicated it couldn't be

1	done in clearcutting, leaving residuals, yet we have
2	heard all kinds of evidence where a variety of ways
3	residuals are left before clearcutting goes on.
4	MR. HYNARD: Yes, Mr. Martel, there I was
5	talking about the identification of trees suitable for
6	denning by cavity nesters and the protection and
7	retention of those particular trees.
8	That would involve identification of
9	them, and if they had that special value it is possible
.0	of course in a clearcut, if they are of a non-wind firm
1	species, they would go down anyway. In other words,
2	what I am trying to suggest is the technique that I
3	used for my circumstances does not have application
4	elsewhere, or may not.
5	MR. HANNA: Q. Okay, then, that raises
6	two things. I just feel the first thing is where in
7	the process does this occur? I mean, I am talking
8	strictly now of your Minden unit at the
9	MR. HYNARD: A. Well, it occurred
0	process-wise it occurs in the development of
1	prescriptions for and in this case it was normal
2	actually we placed it as an area of concern. That's
3	why I have such a high percentage of areas of concern
4	shaking out on my particular unit, because relatively
5	minor little things like this that don't result in

no-cut reserves and don't result in extra costs and 1 2 effects on timber productivity nonetheless get on the 3 list. 4 But your question is: Where in the 5 process? Relatively early in the process. It was 6 identified as a concern by the fish and wildlife 7 supervisor early in the process prior to the 8 development of the silvicultural groundrules and the 9 operational prescriptions for areas of concern. That 10 is where it was. 11 Actually, to be perfectly truthful with you, I thought about it a couple of years ago. We have 12 13 been doing it for several years now because in our 14 selection cuts we have a scarcity of good quality 15 growing stock. We have room for more trees in our stand and I thought: Well, we are going to keep some 16 more trees, let's keep some trees that are useful. And 17 18 so mass production trees, beech -- growing beech nuts that are used by wildlife get similar type of 19 20 prescription where they are not in strong competition with a saw timber crop tree. 21 There is certainly not a limiting factor 22 for wildlife, you only get a beech crop every few years 23 and so it -- none of this is new, but in the process it 24

occurs at the point that I described to you.

1	THE CHAIRMAN: And if it were the public
2	that were involved and not an MNR employee, like a fish
3	and wildlife biologist, they would raise the concern,
4	you would document their concern
5	MR. HYNARD: Exactly.
6	THE CHAIRMAN: and if you didn't go
7	along with their wish, how would that be dealt with?
8	MR. HYNARD: It would raise that concern
9	and we would consider several different options. One
10	of the options that I might consider in such a case,
11	this question of den trees for wildlife, one of the
12	options would be to keep any such tree that was found
13	in the bush on any area which might be operated upon.
4	A second one would be to do nothing about
15	it at all, just say: No, we don't want to do that; and
16	a third option would be somewhere in the middle. And
.7	there would be documentation of the rationale. Why
8	would we not want to do it absolutely everywhere?
. 9	Well, because of all those extra costs of identifying
20	trees where people would not normally be going because
21	of the interference of those trees with other forestry
22	operations.
23	If you are conducting site preparation
24	and so on, they are in the way. If you are conducting
25	treatments that well, they can have an effect on

1	timber productivity, too.
2	THE CHAIRMAN: What is the recourse of
3	the person that doesn't like your decision?
4	MR. HYNARD: Well
5	THE CHAIRMAN: If any?
6	MR. HYNARD: That happens, I must admit,
7	that not everyone is going to be perfectly happy with
8	the outcome. And usually in my experience it's the
9	person with the philosophical objection rather than the
10	direct interest.
11	When you are dealing with a party with a
12	direct interest it's usually possible to accommodate
13	them because their interest is specific, it's on a
14	specific area, it's concrete, you can deal with it.
15	It's when there is a philosophical objection that it's
16	much more difficult. What happens, what is their
17	recourse? I think that is a legal question; isn't it,
18	Mr. Freidin?
19	THE CHAIRMAN: But, no, I am not asking
20	for the legal answer. I am just saying in your
21	experience what happens
22	MR. HYNARD: Oh.
23	THE CHAIRMAN:when somebody looks at
24	your answer, looks at the rationale that you provide
25	for not following

1	MR. HYNARD: Yes.
2	THE CHAIRMAN: taking into account that
3	concern.
4	MR. HYNARD: Process-wise.
5	THE CHAIRMAN: What normally happens in
6	the process at that point?
7	MR. HYNARD: Yes.
8	THE CHAIRMAN: Does it just end, they
9	walk away and you never hear from them again or
10	MR. HYNARD: Yes. Process-wise, they
11	would raise the concern early on and at stage two, the
12	public information centre, they can see specifically
13	our proposals and they can then have a second
14	opportunity to raise that concern.
15	At stage three, they can review the draft
16	plan to see if in fact and we advise them if in fact
17	their concern has been addressed and how and why.
18	THE CHAIRMAN: And assuming all those
19	things occur and in the third stage they don't see
20	their concern addressed the way they would like to see
21	the concern on the plan
22	MR. HYNARD: Yes, and they object with us
23	again and say: No, you didn't do it, I told you to do
24	it and you didn't do it. And at that time we would
25	we always we bend over backwards to try and

1 accommodate people and to have them understand the 2 rationale also. 3 However, it's possible that they would 4 still object and in that case their only recourse is 5 bump-up, as I see it. 6 MR. HANNA: Q. Okay. Now, where in the 7 process now that this -- let's presume we don't go to 8 bump-up, but that is where I wanted to go to --9 MR. HYNARD: A. Yes, nobody wants to 10 talk about it. 11 Q. What I am interested in as we go 12 through the process, and let's assume that you -- we 13 work out a compromise that is acceptable to both 14 parties and whatever, now what happens then, like where 15 does that show up in the final product? A. Well, in the case of the -- I haven't 16 17 finished on my operational prescriptions for areas of concern and how to do the stand listing and all that, I 18 haven't been through it all, Mr. Hanna, but that is 19 where it would appear, in those prescriptions --20 The silvicultural -- I am sorry. 21 A. Well, I am not just sure on the one 22 with the den trees in which category to list it, so I 23 24 am not able to answer offhand. MR. GREENWOOD: Mr. Hanna, if in fact it 25

was a situation with the tree den trees or the cavity 7 nesting trees that Mr. Hynard described, where in fact 2 it was incorporated in normal operations, that 3 4 documentation would become part of the supplementary documentation of the management plans. So the concern 5 and the rationale for the answer and what that answer 6 7 is would be identified there. It may also be 8 identified in silvicultural groundrules for normal 9 areas. 10 If the answer had have been to go to an 11 area of concern with a special prescription, then that 12 is where it would show up, as an area of concern, with 13 it's own prescriptions set out for that area of 14 concern. And, again, the types of questions you are asking here I know are going to be spoken to in Panel 15 16 15. How that--17 MR. HYNARD: Yes. 18 MR. GREENWOOD: --process works, the 19 appeal process. That is all included in Panel 15. 20 MR. HYNARD: And I had promised myself 21 not to have anything to do with Panel 15. MR. HANNA: Q. Mr. Hynard hasn't given 22 23 us evidence in terms of how he, as a unit forester, 24 goes about making these decisions in terms of 25 silvicultural harvesting systems, so I am interested in

1 looking and seeing how those decisions are, in fact, if 2 you will -- how they get incorporated in the process 3 and that is the reason -- I appreciate what you are 4 saying, Mr. Greenwood, and I think we all look forward 5 to Panel 15. 6 Mr. Hynard, I just want to make sure in 7 this particular example that they would show up in the 8 silvicultural groundrules; is that correct? 9 MR. HYNARD: A. No, I didn't say that. I haven't concluded how to handle that. 10 Q. Well, I believe yesterday when we 11 12 were talking about the Red Lake management plan, I believe you said with respect to residuals trees, not 13 where you are going out and individually identifying 14 them, but where you are going to have residual trees 15 standing, that if it was deemed that they should remain 16 that that would appear in the silvicultural grounds 17 rules: is that correct? 18 A. With regard to the Red Lake plan? I 19 don't recall any mention of residuals on the Red Lake 20 21 plan. Q. All right. Let's talk about 22 groundrules anywhere in the boreal forest then. I 23 believe you called it mixed wood stand or ... 24 A. Mixed wood, the boreal mixed wood. 25

1	Q. Mixed wood Stand.
2	A. Mm-hmm.
3	Q. And part of the forest of that stand
4	is marketable and part of it is not, so we are going to
5	have a residual crop left over?
6	A. Yes.
7	Q. As I understand, the Ministry has two
8	options to deal with that well, maybe more but
9	essentially the trees stay or the trees go?
10	A. Well, three options or to entirely
11	bypass the stand, not cut at all.
12	Q. Okay, fine. But let's say we have
13	decided we are going to cut the stand?
14	A. Yes.
15	Q. Now, the public comes forward and
16	they say to you: We feel that we would like to have
17	residual trees standing, and you say: Well, we can't
18	do it in all situations, it just isn't economic. In
19	some cases it makes better sense to tramp them and do
20	whatever, but in other cases we can see your position
21	and, therefore, we will accept it.
22	I am trying to figure out where that
23	gets where that fits into the timber management
24	plan.
25	A. Yes, and I said that I was unable to

1	give you that answer.
2	THE CHAIRMAN: You are not saying that it
3	isn't recorded somewhere, you are saying effectively
4	you don't know where?
5	MR. HYNARD: Yes, exactly, that is what I
6	am saying and, of course, that decision faces me on my
7	unit in my plan and I probably would have solved it if
8	I weren't here at the hearing.
9	THE CHAIRMAN: But there is direction
10	provided somewhere to tell you where to put it?
11	MR. HYNARD: Well, I am going to have to
12	put it somewhere, Mr. Chairman, and I assure you it
13	will be in the plan and it will appear. I am just not
14	sure in which category and I am unable to answer that
15	question.
16	MR. HANNA: Q. Okay, Mr. Hynard, I am
17	pretty well finished on this, I would just like to try
18	and see if we can just finish this off. Obviously in
19	Panel 15 we can talk about this more.
20	You have indicated you don't want to have
21	the rationale documented, you have given us your
22	opinion why. We have established that for the
23	silvicultural groundrules within a given working group
24	that there still is a fair degree of discretion in
25	terms of the actual prescription that could occur in

1 any particular working group? 2 MR. HYNARD: A. Oh, yes. And I believe it's fair to say that 3 there are tradeoffs that have to be made except in 4 determining those prescriptions for any one of those --5 6 certainly in any one of those prescriptions. We have 7 agreed to that? 8 Yes. We did agree to it, yes. 9 0. And we have agreed to the fact that 10 weights are essentially a reflection of societal values; right? I asked Dr. Euler that question. 7.7 12 A. Yes, I recall his answer quite 13 clearly, it was that it was reflection of Ministry 14 objectives and, yes, indirectly a reflection of societal values. 15 16 Okay. And in fact what we are doing 17 in this process - and I quite honestly feel quite 18 comfortable to think that the Minden District has got 19 someone like you making these sorts of decisions -- is 20 that you are basically vested with, at some point in 21 the process -- we can't tell you to do everything, you 22 have to at some point take some sort of, let's say, independent step yourself, you have to -- at some point 23 24 you have to do use your best judgment and you have got 25 these directions that are given and you use your best

1	judgment and make those decisions?
2	A. Exactly, yes.
3	Q. And in making those decisions you try
4	to do the best that you can as a forester to reflect
5	all those tradeoffs that you are faced with
6	A. I do.
7	Qin making those choices?
8	A. I do.
9	Q. Well, the bottom line from my point
10	of view is this, and that is simply: It's my
11	understanding that on forest management agreement
12	forests that the type of decisions that we have been
13	talking about for an extended period of time here - and
14	I hadn't expected to go quite this long those
15	decisions are made by company foresters, by the company
16	unit forester; is that correct?
17	A. I think we described yesterday how
18	those decisions were made, the role of the planning
19	team, the role of the forester, yes.
20	Q. I am not talking now remember what
21	we have said, after the timber management plan is
22	prepared that planning team disbands, I believe that
23	was your words, unless there is an amendment?
24	A. Yes. That is my understanding, yes.
25	Q. So once the planning team's role was

1	complete, they provide to that forester, be ne a
2	company forester or a Ministry forester, a set of
3	silvicultural groundrules which have certain discretion
4	in them and they say: Unit forester, you proceed with
5	the management of that forest according to those
6	guidelines?
7	A. Yes, and those silvicultural
8	groundrules and all the other measures contained in
9	that timber management plan have found have been
10	found to be acceptable by the planning team and by the
11	Ministry of Natural Resources. That plan has now been
12	approved by MNR and that forester is now able to
13	implement that plan.
14	Q. What I believe you have just gone
15	through and explained to us the fact the problem you
16	have in identifying den trees at the planning level
17	because you don't really know where they are you until
18	you get out there; right?
19	A. Well, you are quite right, you don't
20	know where all the den trees are until you walk up to
21	the tree. But with regard to individual trees, you can
22	determine what the criteria is for a den tree.
23	THE CHAIRMAN: Okay. But if the
24	prescription were given to a company forester to
25	preserve den trees, would he not be under an obligation

1	to go out and there do just that?
2	MR. HYNARD: Yes. If it was contained in
3	his plan he would go ahead and do that, yes.
4	THE CHAIRMAN: So the fact that it is the
5	company forester exercising this area of discretion,
6	vis-a-vis a unit forester, a Crown forester doing the
7	same thing, I think that is what you are getting at,
8	isn't it, Mr. Hanna, are you concerned with the
9	difference between it being a company forester and a
10	Crown forester and the fact that some of these
11	decisions are made using this discretionary process,
12	and you are concerned about how it's documented and how
13	it's supervised? Is what your concern? Where are you
14	going in this?
15	MR. HANNA: That captures some yes, I
16	think the reason I went to this business about the 36
17	choices with
18	THE CHAIRMAN: Forget the 36 choices,
19	let's get down to a basic concern that you have in this
20	area of questioning.
21	MR. HANNA: Well, the basic concern is
22	this, and that is that the silvicultural groundrules
23	are the operating rules that are applied in the normal
24	operating areas, so as long as you are within that you
25	are deemed to be acceptable in terms of your

operations. 1 Now, we have discussed about the normal 2 3 operating areas for the last two days and I think we have established that there are tradeoffs that are made even at that level and that those tradeoffs involve 5 6 economics and they involve other factors. 7 Now, my concern is simply this, and that 8 is that those tradeoffs require the unit forester to use, as Mr. Hynard has said, his best judgment, but 9 using his best judgment he, in fact, is the custodian 10 11 of the resource; he has to reflect what his view is of 12 what -- in society's best interest. And, as I said, I 13 feel quite comfortable to think there is man like Mr. 14 line out there doing that. 15 THE CHAIRMAN: I assume that you do not 16 feel quite as comfortable with a company forester doing 17 the same thing? 18 MR. HANNA: I think that is fair 19 assumption, sir, and, if I could, I think it's a very 20 difficult position for a company forester to be in because he's really trying to serve two masters. 21 22 THE CHAIRMAN: Okay. So that's the 23 bottom line. Now, let's deal with that basic concern 24 without going through the 36 choices. 25 MR. HANNA: No.

1	THE CHAIRMAN: How does the Ministry, in
2	effect, supervise, if that is an appropriate term
3	MR. MARTEL: Monitor.
4	THE CHAIRMAN:or monitor the company's
5	forester's exercise of his professional
6	responsibilities as a forester, but also what you might
7	perceive as his responsibilities to his employer, being
8	a company?
9	MR. HYNARD: Well, in the case of an FMA,
10	one of the responsibilities of the company is to
11	prepare a timber management plan, and they following
12	the same timber management planning process, the same
13	planning teams and everything that we have been
14	discussing.
15	One of the obligations of the Ministry is
16	to approve that management plan or approve it with such
17	alterations as are considered advisable, and they would
18	take into account these other land use forest uses
19	and values.
20	Another a second responsibility of the
21	FMA holder is to implement the management plan. They
22	must conduct their operations in accordance with that
23	timber management plan and in accordance with the
24	groundrules.
25	Now, with regard to the monitoring of

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1
        that, there is a whole panel, 16, I believe, to deal
 2
        with that and regrettably I can't be there either.
 3
                      MR. HANNA: Well, I wouldn't regret that.
 4
        Not that I wouldn't enjoy your views, Mr. Hynard, but I
        am very happy to think you are going to go back and
 5
 6
        take care of the forest, and I say that in all
 7
        sincerity.
 8
                           I appreciate what you have just said,
                      0.
 9
        but it's my understanding that, for example, a strip
10
        cut is, in some cases, more expensive than, say, a
                   Is that a fair assessment?
11
        clearcut.
12
                      MR. HYNARD: A. Yes.
13
                          And is it not --
                      0.
14
                          With regard to the harvest element.
                      Α.
15
                          Yes, I am sorry, we are talking about
                      0.
16
        harvest here--
17
                      Α.
                          Mm-hmm.
18
                           -- and I am dealing strictly with
                      0.
19
        harvest. And I believe I asked Dr. Euler if there are
20
        situations where a strip cut could potentially be more
21
        beneficial to moose than an open clearcut in a normal
22
        operating area?
23
                      Α.
                          Yes.
24
                      Q.
                          Dr. Euler, I believe you said there
25
        is potential?
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1	DR. EULER: A. Yes.
2	Q. So I am putting myself in the
3	situation of a company forester, and I have before me
4	the silvicultural groundrules for SB2 which we have
5	looked at and the Red Lake management plan in Exhibit
6	512, and while I may realize that there may be some
7	benefit to going to a strip cut in terms of other
8	considerations I might have, from my employer's point
9	of view I would not be serving him well by going to a
10	more expensive option and I have that discount
11	correction in SB2.
12	THE CHAIRMAN: But just to interrupt for
13	a moment, would a crown forester have exactly the same
14	discretion in that particular scenario as the company
15	forester?
16	MR. HYNARD: With regard to those
17	options?
18	THE CHAIRMAN: With regard to the two
19	options of either strip cutting or clearcutting on that
20	particular stand.
21	MR. HYNARD: Yes, and the criteria on
22	Table 4.11.2 and 4.11.3, I believe, for SB2 are fairly
23	clear to me as a forester.
24	The fourth option was dependent upon the
25	presence of sufficient advanced reproduction to restock

1	the stands to the specified stocking standards. In
2	other words, that option is only available if we have
3	black spruce advanced reproduction to that degree.
4	THE CHAIRMAN: But just dealing with the
5	difference between a company forester
6	MR. HYNARD: Oh, there is no differnce.
7	THE CHAIRMAN:making those decisions
8	and a Crown forester, would the Crown forester in
9	arriving at his decision as to which option to go to
10	also take into account the cost to the Crown, in that
11	case, of doing one option or the other?
12	MR. HYNARD: Well, certainly in
13	prescribing the silviculture costs is one of the
14	factors, but in this particular case, Mr. Chairman, in
15	Red Lake, the criteria there are laid out, advanced
16	reproduction, there is a question of seedbed; for
17	example, if there was a seedbed no site prep would be
18	done, if there was not a suitable seedbed it would be
19	sheer bladed or prescribed burn.
20	So they have that discretion. They have
21	to make that choice based on that criteria, and the
22	Crown forester and company forester would behave
23	similarly in making that.
24	Now, with regard to the question of
5	selecting a silvicultural harvest system that takes

1 into account economics, yes, the crown forester should 2 be doing that. Of course he is doing that, if he 3 wasn't, the input from the company, his licensees would 4 reflect that. 5 MR. MARTEL: It is not just contingent 6 then on one matter, though? I mean, I think that is 7 what Mr. Hanna's worry is. 8 Does it come down to the unit forester 9 for the company and a different position than the unit forester for the Ministry, because the only thing he 10 11 might be concerned with is the bottom dollar line for 12 the company? 13 MR. HYNARD: Yes, yes. I think that's what he is 14 MR. MARTEL: 15 driving at. 16 MR. HYNARD: And this business of two 17 masters and conflict of interest sort of thing, I have 18 never seen it that way at all and I am hardly -- I am not a spokesman for the industry and -- I mean, that is 19 not why I am here, but I can't say that company 20 foresters are torn between two loyalties in that sense 21 22 at all, nor are the companies. They are charged under their FMA with the 23 24 responsibility of writing that management plan and implementing it, conducting operations in accordance

with it. And I can't say that they are torn in that 1 2 sense at all. Sure, economics is a factor in arriving at what that plan is going to say, but they are not 3 4 torn in implementing it, sneaking around and getting 5 the cheaper option. MRS. KOVEN: Would you conclude that the 6 7 timber management planning process has been devised in 8 such a way that company foresters are saved from the 9 situation of having to make decisions that are purely 10 financial versus situation -- versus the options that 11 will lead to renewal? 12 MR. HYNARD: Well, yes. They are in that 13 sense saved from it because they must go through that 14 process and it leads them in the setting of objectives, 15 the strategies how to attain those objectives, 16 including these other land uses and values. 17 They have other planning team members whose roles are to protect those other programs, 18 19 interests in values. It's not -- it's simply not --20 they don't have the latitude or the liberty of making 21 decisions purely on economics, you are right. 22 THE CHAIRMAN: Because it wouldn't be 23 approved by the Ministry, is that --24 MR. HYNARD: Well, exactly. The 25 Ministry's obligation with regard to that FMA is to

1	approve that plan or approve it with the alterations
2	that we considered proper, and then the company must
3	conduct it's operations in accordance with that plan.
4	I feel a little uncomfortable in bringing
5	forward a position of defense for company foresters. I
6	am sure they are much more able to do that themselves,
7	but
8	THE CHAIRMAN: We are basically
9	interested here in what controls the Ministry has to
10	ensure
11	MR. HYNARD: Yes.
12	THE CHAIRMAN: the integrity of a
13	company's forester's conduct in developing a plan
14	MR. HYNARD: Yes.
15	THE CHAIRMAN:because they are
16	employed by a company and, as Mr. Hanna has indicated,
17	they don't they aren't custodians of the resource in
18	the same sense that the Ministry is. The Ministry is a
19	public agency, the company of course is not a public
20	agency.
21	MR. HYNARD: And I have tried to provide
22	my answer in that context, Mr. Chairman.
23	MR. MARTEL: Are the prescriptions let
24	me just take it one step further then. Are the
25	prescriptions let's go back to den trees with

1	respect to you might not allocate the specific
2	trees, you might in your type of cutting if it's not
3	adjacent to a merchantable tree but in another area,
4	does the Ministry not indicate rather specifically or
5	does it intend to rather specifically indicate, let's
6	say, per hectare how many den trees must remain in an
7	area to accommodate the needs of wildlife?
8	MR. HYNARD: Yes. I have seen I have
9	seen prescriptions along those lines and I have not
10	used a set quota of number of den trees per hectare
11	myself for reasons you probably don't want to go into.
12	And in making those comments about den
13	trees in the provisions that I have used on the Minden
14	unit for operations where tree marking is being used,
15	particularly selection management in maple stands and
16	commercial thinnings, it is not something I don't
17	want you to get the impression that I believe everyone
18	should be doing this everywhere at all. It has I
19	think you have to look at the factors that I described
20	to you in coming to a conclusion such as I did.
21	THE CHAIRMAN: Sorry, Mr. Hanna, but you
22	raised the concern and I think it's an issue of concern
23	with the Board as well.
24	MR. HANNA: Okay.
25	Q. I just want to clarify on this

1 particular issue, Mr. Hynard, that we are dealing here 2 with after the timber planning process; in other words, 3 after the timber management plan is prepared, and I am looking strictly at the silvicultural groundrules and 4 5 the implementation of those, and I will just ask one 6 last question in this and actually I think I am 7 finished with you, depending what your answer is, and 8 that is, is there any discretion in the silvicultural 9 groundrules for forest management agreements and if 10 there is discretion, does that discretion involve both, 11 if you will, commercial interests and non-commercial --12 non-timber values? 13 MR. HYNARD: A. Well, with regard to 14 timber values, of course there is discretion, the 15 options are there for different treatment methods. 16 With regard to those other values, I think we have made it perfectly clear about areas of 17 concern and how they are incorporated in that fashion. 18 19 We have acknowledged that there are effects upon other values such as wildlife by normal operations, we have 20 indicated that they are not significant or negative, 21 and we have defined what those are. 22 Your question is: Is there -- oh, and 23 with regard to normal operating areas, we recognize, 24 for example, that moose occur in normal operating areas 25

not only in areas of concern. The fact that -- I mean 1 otherwise everything would be an area of concern. 2 That is why we have moose guidelines, and Dr. Euler 3 explained what they were and how they are used. 4 5 And so in laying out that cut allocation 6 with respect to moose, for example, what discretion 7 does the company head forester have with regard to the 8 moose guidelines and moose, he has laid out his 9 allocations for forest in accordance with those 10 quidelines, as Dr. Euler described, and he has no flexibility there; he can only cut the allocated stands 11 12 unless the plan is amended. That moved into the area of concern 13 14 of I did try to keep us out of that sphere. 15 Well, we can't talk --16 Let's just talk. I realize we have 17 to talk area of concern and I am sure we will talk 18 about that for a long time. 19 MR. FREIDIN: I think if the witness 20 wants to say that he doesn't believe that the 21 conversation you can separate artificially the two 22 areas for the purpose of answering his question he 23 should be allowed to say so and expand on that, if in 24 fact that is what he wants to do. He shouldn't be cut 25 off in the middle of his answer.

1	MR. HYNARD: Well, in fact, that is why I
2	keep bringing up area of concern. I know you want to
3	concentrate on normal operating areas, but if we are
4	talking about other uses and values of the forest we
5	can't ignore areas of concern. It's a major part of
6	how that is handled.
7	MR. HANNA: Q. Well, I have lied, I
8	thought I was going to ask you one last question but if
9	you want to talk about areas of concern I will ask you
10	several questions on areas of concern. In areas of
11	concern are the silvicultural groundrules any different
12	than they are in normal operating areas?
13	MR. HYNARD: A. Yes, they may be.
14	Q. Do the silvicultural guidelines or
15	silvicultural groundrules in areas of concern have any
16	discretion in them?
17	A. With respect to the other use or
18	value?
19	Q. Well, perhaps
20	A. Well, let me give an example then.
21	Let's say that an area of concern has been identified,
22	let's say it's a warm water fishery, that a
23	prescription an area of concern prescription has
24	been made and that is for a breaking up of the cut,
25	no-cut reserves being left along the lakeshore in part,

1	and a cut extending to the lakeshore in another part,
2	and the allocation has been made in that fashion, it is
3	mapped in that fashion, is there any discretion in
4	cutting it? No, none, that area of concern
5	prescription will be followed.
6	Q. I just want to make sure I am clear
7	on this. Now, we had gone with the Red Lake Crown
8	management unit silvicultural groundrules. I believe
9	we decided that there were 36 possible combinations?
10	A. I think that was your evidence.
11	Q. No, I believe that is your evidence,
12	Mr. Hynard.
13	THE CHAIRMAN: Well, we did a
14	multiplication and I think somewhere in that
15	multiplication we came up with the number 36.
16	MR. HANNA: Thank you, Mr. Chairman.
17	THE CHAIRMAN: So let's just assume for
18	the purposes of discussion it's 36.
19	MR. HANNA: It is more than one.
20	MR. HYNARD: Yes.
21	MR. HANNA: Q. It's more than one, that
22	is really all that matters.
23	MR. HYNARD: A. Yes. Let's keep moving.
24	Q. Yes, I agree. In an area of concern,
25	would there be more than one accepted prescription?

1	A. Well, I said with respect to the
2	other use or value when I gave you my answer last
3	well, I don't know if there would be. I can't think
4	of I can't think of a case where there would be more
5	than one option.
6	Q. Can anyone on the panel think of an
7	option?
8	MR. GREENWOOD: A. Yes, I can think of
9	an example, and you started into actually, Mr. Hynard.
10	You said in an area of concern where the pattern of
11	harvest was laid out there would be no discretion with
12	respect to the pattern of harvest.
13	If in fact there were areas within that
14	area of concern which were to be regenerated and the
15	concern which created the area of concern did not
16	relate to renewal, it related to the pattern of
17	standing timber which was left, the forester would
18	retain the same flexibility to carry out renewal in
19	those areas.
20	The area of concern prescription would
21	mention site preparation and planting or site
22	preparation and renewal, but it would not specify the
23	exact tool to be used or exactly when it was going to
24	do done. That type of discretion would still be left
25	to the forester to make the decision. The decisions

where the discretion would be left would not be 1 affecting the area of concern. 2 Thank you, Mr. Greenwood. I thought 3 this was done but, Mr. Hynard, it seems that I just 4 have to touch this normal operating area again and that 5 deals with the matter of this residual timber that we 6 have talked about, standing or whatever--7 8 MR. HYNARD: A. Yes. -- and I believe Dr. Euler said that 9 10 he couldn't think of a situation where it wouldn't have some benefit to wildlife. 11 12 Now, in that situation -- or perhaps I 13 will ask this question of Dr. Euler, excuse me. What 14 objectives would a district biologist refer to in 15 deciding whether or not residual standing timber would 16 be necessary to achieve a Ministry wildlife objective? 17 DR. EULER: A. Well, you should go to 18 the Strategic Land Use Plan for his district and his 19 objectives will be written down there. 20 We gave in evidence some of the 21 objectives from the northeastern and the northwestern 22 Strategic Land Use Plan and then those are broken down 23 by management unit or district. And they are -- they 24 come from those documents.

Q. And then the district biologist looks

1	at those district objectives and decides on what
2	portion of the objective is going to be satisfied by
3	this forest management unit; is that correct?
4	A. That's correct, yes.
5	Q. What type of wildlife would benefit
6	by residual standing timber?
7	A. What type of wildlife, species?
8	Q. Groups. I will leave it to your
9	discretion.
10	A. Well, species, such as woodpeckers
11	and others that live on trees that die, those species
12	that nest in cavities because the residual timber often
13	will die and it's softened and cavities are excavated
14	or disease attacks it. Does that answer
15	Q. Yes. And I believe the Ministry has
16	I believe guidelines for cavity nesting species?
17	A. Yes.
18	Q. Now, what objective does the Ministry
19	have for those species that use the residual timber?
20	A. In most cases the objective is, as I
21	gave in my evidence, that those population remain
22	viable.
23	Q. And the cavity nesting guidelines are
24	used to deal with that objective with respect to those
25	types of species?

1	A. Yes, they are a helpful tool to use
2	in achieving that objective.
3	Q. And at what level are they used?
4	What point in the process are those actually
5	implemented, the guidelines?
6	A. The timber management planning
7	process or
8	Q. Okay, yes.
9	A. At what point? Well, they could be
10	using at several points. They could be used at that
11	very early step where considerations are identified
12	very early or they could and they could be used in
13	the step of making prescriptions. There are several
14	points at which they could be used.
15	Q. Yes, I understand that, and that is I
16	guess why I am still coming back to the same issue that
17	the Board asked you about and I don't want to lose
18	sight of that. I don't want to go rambling everywhere
19	here, but I am trying to come back to these types of
20	decisions that the unit forester is faced with in terms
21	of how do they envision the prescription level.
22	A. Yes.
23	Q. And I am putting myself in a
24	situation of a unit forester faced with a residual
25	timber area and how I would go about that decision and

1 how I would deal with making these tradeoffs in terms 2 of--3 A. Mm-hmm. 4 --cavity nesters. Can you tell me 5 how they would -- how these objectives and guidelines 6 would come into play in that decision? 7 A. Yes, there would be a planning team 8 meeting very early in this process. 9 Q. I am sorry to interrupt, I just want 10 to make sure -- I am talking now about after the plan 11 is in place, okay? 12 A. After the timber management plan is 13 in place. That's right. I am referring 14 0. specifically to the silvicultural groundrules and using 15 16 the ones of Red Lake management plan as an example. 17 A. Yes. Q. And I am looking here at this and I 18 am trying to put myself in the situation of a unit 19 20 forester faced with these silvicultural groundrules and having the situation where I have a residual stand of 21 time that I am going to have to deal with and I have to 22 make that decision, how I deal with that. 23 24 A. Yes. Q. Now, are you suggesting that these 25

silvicultural -- or these wildlife objectives and these 7 quidelines would be incorporated in these silvicultural 2 3 groundrules? They can be, yes. I have seen plans 4 that incorporated them in the groundrules, yes. 5 6 Which plans are those? 7 The one that I recall that just comes 8 to my head is the one from Lanark where the 9 groundrule -- it incorporated a certain number of dead 10 trees per hectare. I just forget the number right now. Q. Is Lanark a forest management unit? 17 I would be interested in following this up, I just want 12 to make sure I get the details to which one is this. 13 14 A. I think that was in our -- in that answer to Interrogatory 27(c), and I just don't recall 15 16 the precise heading on that column, it was either 17 Lanark or ... 18 MR. HYNARD: The heading was Lanark 19 District but the name of the management unit, Mr. 20 Oldford will have it in just a second. DR. EULER: It's a fairly recent one. It 21 22 is Carleton Place District -- yes, Lanark management unit. Yes, I recall looking at those groundrules and I 23 24 recall seeing that that was one of them. 25 MR. HYNARD: But your question, Mr.

Hanna, was how would it be incorporated after the
management plan had been written, and the answer really
is it's incorporated into the writing of the management
plan.

How is it incorporated in or, why, for
example, am I not keeping -- prescribing the retention

example, am I not keeping -- prescribing the retention of residuals following poplar clearcutting? With regard to woodpeckers, we have an abundance of suitable trees for woodpeckers now. The supply of that kind of tree is not a limiting factor. The woodpecker population is not a concern, it's very viable and healthy, and so there is no need for such a prescription. And it would not be employed for the simple reason that it would have a tremendous effect on timber production which is, after all, one of our objectives.

On my unit, we want to grow 110,000 -- I am sorry, I can't remember my realistic attainable quantifiable target at the moment. 311,000 cubic metres annually. However, I already have met my woodpecker objective, I have a good viable population on my unit, and yet if I were to keep all those residuals it would interfere tremendously with my ability to attain my timber production target. So I elect to knock down those residuals and treat the area.

1 It is that simple. THE CHAIRMAN: But the key point is that 2 the identification of the need to retain those kinds of 3 residuals would have been identified in the preparation 4 of the plan? 5 6 DR. EULER: Yes, right. MR. HYNARD: Yes, not after. 7 THE CHAIRMAN: It wasn't identified in 8 9 the preparation of the plan, it is entirely up to the 10 discretion of the unit forester --DR. EULER: That's right. 11 12 THE CHAIRMAN: -- if he should decide to save some; for instance, he could go beyond, could he 13 14 not? I mean, could he decide to save some trees that were not prescribed to be saved? 15 16 MR. HYNARD: Well, yes, he could and I am an example, I built that prescription in after I had 17 18 written the last management plan, just went ahead and 19 did it and no one objected. 20 MR. HANNA: Q. Mr. Hynard, just for the 21 record, I am not suggesting we save every tree for 22 woodpeckers, that is not where I am coming from at all. 23 What I am coming from is this simply: I 24 am just looking at the amount of discretion that is 25 available in silvicultural groundrules and trying to

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1
        determine if the company forester, as opposed to the
 2
        Crown forester, is put in the situation of having to
 3
        make tradeoffs.
 4
                      MR. HYNARD: A. Yes, I understand what
 5
        you were suggesting. The reason that I made those
 6
        remarks is that in using that particular example I
 7
        didn't want any lose ends untied. I think we should
 8
        close off the woodpecker discussion in the residuals
 9
        trees because I didn't want to leave the impression
10
        that we have a problem and we should be doing something
        about it and the process can't handle it. I did not
11
12
        want to leave that impression, that is why I made those
13
        remarks.
14
                      THE CHAIRMAN: Consider the woodpecker
        matter closed.
15
16
                      MR. HYNARD: Thank you.
17
                      MR. HANNA: Okay. Well...
                      THE CHAIRMAN: Well, Mr. Hanna, going
18
        back to your question, I mean, we are going around in a
19
        circle. You are trying to ascertain how these
20
21
        prescriptions are dealt with by the unit forester, and
        I think the answer is whether it's a company forester
22
        or a unit forester, an MNR forester, it's dealt with at
23
        the planning stage in the development of the plan.
2.4
                      MR. HANNA: Yes. The only question --
25
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THE CHAIRMAN: And the plan has to be 1 approved by the Ministry if it's one written by the 2 3 company forester. 4 MR. HANNA: Yes, sir, I appreciate that. 5 I guess the one question that I was just trying to get 6 clarified is how much discretion is placed on -- see, I 7 am looking at it from the public's point of view. 8 public comes forward and we've got 36 potential options 9 available on a particular site, it's very hard then to 10 comment in a meaningful way. 11 THE CHAIRMAN: There may be some 12 discretion allowed in the actual carrying out of the 13 activity, but if there is discretion allowed, as I 14 understand it from the evidence, it is because it 15 wasn't identified in the planning stage as one that is 16 requiring a specific prescription that must be 17 followed. 18 MR. HANNA: I agree and I was simply --19 and then I was just following along on that just to 20 ensure that if the issue was identified does it 2.1 become -- I believe in Mr. Hynard's case he said that 22 it would become an area of concern, and I was asking 23 the question with respect to a normal operating area, 24 how that concern would be dealt with. 25 Would it come in through the

1 silvicultural groundrules as prescription or would it 2 be... 3 THE CHAIRMAN: Well, I mean, we have 4 either got to deal with it as a normal operating area 5 or area of concern, one or the other, but it's still 6 part of the planning process. 7 MR. HANNA: I appreciate that. I 8 appreciate the planning process side of it, sir, there 9 is no question. Let us move on. I believe I have 10 finished now with Mr. Hynard. 11 Are we going to take another break, sir? THE CHAIRMAN: Yes, I think we will take 12 13 another break and then we will probably go till about 14 one o'clock. 15 MR. HANNA: Okay. THE CHAIRMAN: You are obviously not 16 17 going to finish today? MR. HANNA: I have spoken to my advisor 18 here and I undertake to be finished for certain by 19 Wednesday at the latest, Wednesday evening, and I am 20 hoping I will finish before then. 21 22 THE CHAIRMAN: Okay. So that we could schedule the next party to commence examination, which 23 will be Mr. Hunter, for next Thursday morning. 24 25 MR. HANNA: Yes, sir.

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THE CHAIRMAN: If that is possible.
                                                           Not
1
2
       next Thursday, but a week --
3
                      MR. HANNA: Yes, I realize it's a week
4
       Thursday.
                      THE CHAIRMAN: Okay. We will return in
5
        20 minutes.
6
7
        --- Recess taken at 11:50 a.m.
8
        --- Upon resuming at 12:15 p.m.
9
                      THE CHAIRMAN: Thank you. Be seated,
10
       please.
                      MR. HANNA: Mr. Chairman, I would like,
11
        if I can, to try and finish with Mr. Oldford today. I
12
13
        don't have that many questions for him. If I can, I
        would like to move as quickly as I can through that.
14
15
                      THE CHAIRMAN: Okay.
16
                      MR. HANNA: And I can also say that I
        probably will not have any other questions for him in
17
18
        the remainder of my cross-examination, so that he
19
        doesn't have to be here one day, it won't be a problem
20
        for me.
21
                      THE CHAIRMAN: Well, I think Mr. Freidin
        wants all of the panel members present even if they are
22
23
        not going to be guestioned. Is that the case, Mr.
24
       Freidin?
25
                      MR. FREIDIN: Yes.
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1	MI	R. HANNA: That's fine.
2	TI	HE CHAIRMAN: I think it is better if
3	they are because	e a question may come up from the Board
4	on a matter that	t can be better answered by one of the
5	other witnesses.	•
6	ME	R. HANNA: I was just trying to help
7	him, if I could,	, in terms of being here.
8	Go	ood afternoon, Mr. Oldford.
9	ME	R. OLDFORD: Mr. Hanna. Yes, I plan to
10	be here while th	he panel is sitting. Our solicitor is
11 .	my boss.	
12	ME	R. FREIDIN: That is the first time I
13	have heard that.	•
14	TI	HE CHAIRMAN: Enjoy it while you can,
15	Mr. Freidin.	
16	ME	R. FREIDIN: Only happens when I can't
17	talk to him.	
18	ME	R. HANNA: Q. Mr. Oldford, is this your
19	first experience	e as an expert witness?
20	ME	R. OLDFORD: A. Yes, in this type of
21	forum, sir.	
22	Q.	. I believe in your evidence you have
23	indicated there	are three basic logging methods; is
24	that correct?	
25	A	. That's correct.

1	Q. Now, you would agree that for any one
2	site you are faced with a choice of one of those three
3	alternate methods of harvesting; is that correct?
4	A. That's correct, within the context
5	that Mr. Hynard also spoke in that given different
6	silvicultural harvest systems only certain logging
7	methods might apply.
8	Q. And that would be shown in the °
9	silvicultural groundrules under logging method?
10	A. Yes.
11	Q. Now, in your discussions with Mr.
12	Freidin, he was talking to you about the matter of
13	being able to modify certain pieces of equipment in
14	different ways. Do you recall that?
15	A. Correct.
16	Q. Now, what I am interested in is when
17	is a modification to a piece of equipment sufficient
18	that it's a new piece of equipment? I realize it
19	sounds somewhat rhetorical, but I am asking when is a
20	change a big change?
21	A. I don't think a modification would
22	make it a new piece of equipment, it might make it work
23	a little differently on the site.
24	Q. Okay. The three logging methods that
25	you have indicated, they are quite discreet. Would you

1 agree with that? 2 Α. They are different logging method and 3 in some cases they involve the same types of equipment 4 used in a different arrangement, say. 5 Q. All right. In your evidence-in-chief 6 you made repeated reference to wide or high flotation 7 tires. I would like to know why you made reference to 8 that technology? 9 A. Because it is a modification that can 10 be applied to standard equipment to operate on a 11 certain range of sites where operation could not be 12 carried out without any impacts, say, a significant impact, if you weren't using the wide equipment, the 13 14 wide tires. O. Okay. So I guess the converse of 15 16 that is that you would agree with me that there are circumstances where serious environmental damage could 17 18 occur? 19 There are cases, Mr. Hanna, where --Α. and there are sites that you could not operate on at a 20 21 particular time of the year without having a particular 22 type of equipment, yes. THE CHAIRMAN: But answer the question 23 more particularly in that are there not situations that 24 if you didn't use the tires, the high flotation tires, 25

1	environmental damage would occur?
2	MR. OLDFORD: Yes.
3	MR. HANNA: Q. Now, it seems from your
4	evidence that there are a number of environmental
5	effects that wide tires may alleviate or minimize. I
6	won't get into all the words what they are, but you can
7	avoid one way or the other?
8	A. That's correct.
9	Q. Is one of those effects rutting?
10	A. Yes, and Mr. Greenwood elaborated on
11	that in both his written and oral testimony.
12	Q. Okay. And perhaps I will have to go
13	back and speak to Mr. Greenwood on some of these
14	matters, but I would just like to get from your
15	experience of having been having had a lot of
16	practical experience with logging methods, and I am
17	just asking from that point of view.
18	Is another effect the potential damage to
19	advanced growth?
20	A. In my oral evidence I spoke about
21	advanced growth. And just to clarify this point, there
22	are the context in which I used advanced growth was
23	vegetation on the site in the form of trees that we
24	were hoping to bring forward to form the future stand
25	and that's right, if you don't use the correct

1	equipment with due care and a proper layout, you could
2	injure or damage that advanced growth and that could
3	compromise your hope to be able to bring that forward
4	to form the next stand on the site.
5	Q. I believe you referred to that in one
6	of the slides when you were showing a tree that had
7	been run over and said
8	A. That's correct.
9	Qthat it had survived that impact?
10	A. That's correct.
11	Q. Is another effect that wide tires can
12	perhaps deal with soil compaction?
13	A. It can influence soil compaction that
14	would occur, and that was covered in some detail by Mr.
15	Greenwood in his evidence on effects.
16	Q. Okay. And I will come to Mr.
17	Greenwood on this. Again, the reason I am asking these
18	questions is I want to look at it from an equipment
19	point of view, so that is why I am asking you these
20	questions.
21	Just briefly, can you just explain to me
22	the differences between rutting and soil compaction?
23	THE CHAIRMAN: Well, Mr. Hanna, we had
24	relatively extensive evidence on that from Mr.
25	Greenwood, and I think if you review the transcript of

Ţ	his evidence it is really repeating to a rarge extens
2	what was said by a specific witness dealing with those
3	very two issues.
4	MR. HANNA: I do have to apologize in
5	this circumstance, Mr. Chairman, that this is one set
6	of that one set of transcripts of Mr. Greenwood's
7	evidence I have not had a chance to read. I aplogize.
8	THE CHAIRMAN: I sort of assumed that
9	perhaps you hadn't read that evidence so that is why I
.0	mentioned it, because it was covered extensively.
.1	MR. HANNA: Perhaps I will ask Mr.
. 2	Greenwood this question then.
.3	Q. Mr. Greenwood, are you aware of any
4	recent studies examining the extent and effects of soil
.5	compaction on forest soils in North American?
. 6	MR. GREENWOOD: A. Yes, I am.
.7	Q. Where would I find those listed in
. 8	your evidence?
.9	A. They would be listed both within the
20	reference list at the back of my evidence starting on
21	page 268 and also I can't remember whether there is
22	anything within the bibliography which starts on 270.
23	Q. And do I take it that is a
2.4	comprehensive, up-to-date summary?
25	A. No, it is not. The particular

references that I referred to, Mr. Hanna, and in fact
are also within the body of the evidence itself and as
well as the reference in the bibliography list, were
those which had particular significance to Ontario.
Q. So the other literature that you are
familiar with is not pertinent to Ontario?
A. There may be aspects of it which are
pertinent. I chose not to reference it. Some of them
I also became aware of after the evidence was written;
for instance, there has been studies done in British
Columbia as well. British Columbia conditions, due to
their mountainess and steep terrain, wouldn't
necessarily be directly comparable to Ontario.
Q. Perhaps we can just touch on that
British Columbia study. I think we are talking about
the same British Columbia study, but are you aware that
there was a presentation given to the Canadian Land
Reclamation Association on forest soil compaction?
A. Do you have more specifics?
Q. Yes. It was given on forest soil
compaction in British Columbia. There was only one
paper given at the conference on forest soil
compaction.
THE CHAIRMAN: Do you know when?
MR. HANNA: Yes, August 4th, 1988.

1	MR. GREENWOOD: No, I am not aware of
2	that paper.
3	MR. HANNA: Q. I would like to go back
4	to Mr. Oldford, if I could, please. In your evidence,
5	Mr. Oldford, I believe you spoke or made reference to
6	the matter of bearing pressure and I believe it went so
7	far as suggesting that someone might sit in front of
8	these machines and be run over, and I think we decided
9	that would not be advisable?
10	MR. OLDFORD: A. The Chairman did ask a
11	specific question, sir.
12	THE CHAIRMAN: I didn't make any
13	suggestions as to who.
14	MR. OLDFORD: And I am not making that
15	suggestion either right now.
16	MR. HANNA: Q. Now, is the reason that
17	wide tires can avoid or deal with these potential
18	impacts that we talked about, rutting, protection of
19	advanced growth and soil compaction, because they have
20	more bearing pressure?
21	MR. OLDFORD: A. Yes, and that becomes a
22	very important consideration on certain sites.
23	Q. Would you agree then that soil type
24	is one factor being considered in this respect?
25	A. Yes.

1	Q. And you would agree that the presence
2	of advanced growth is another factor?
3	A. It's a factor if one is choosing to
4	use that advanced growth to form the future stand, and
5	that becomes a management decision that the forester
6	makes and there are alternate options to that approach.
7	Q. So I believe in the evidence I
8	think HARO is that the way we are pronouncing it,
9	H-A-R-O?
10	A. H-A-R-O, that's correct.
11	Q. So if we are using the HARO option,
12	then in that case we might look to high flotation tires
13	to deal with to preserve that?
14	A. To operate on those sites during the
15	frost-free period.
16	Q. Would you agree that soil moisture is
17	another factor which you might take into account?
18	A. Yes.
19	Q. Now, are you aware of any attempts by
20	forest agencies to develop maximum soil bearing
21	pressure standards?
22	A. There are agencies that have produced
23	booklets on soil bearing pressures and have also
24	produced booklets on the bearing pressures of various
25	pieces of equipment with various accessories on that

1	equipment.
2	As a matter of fact, every major
3	manufacturer that produces a pamphlet on a product that
4	it is selling to the forest industry has normally
5	attached a specification sheet with the bearing
6	pressures that that equipment will apply operating
7	under a range of options.
8	THE CHAIRMAN: I don't think that was Mr.
9	Hanna's question. I think his question was: Are you
10	aware of agencies trying to develop soil pressure
11	standards, the setting of standards, either minimum or
12	maximum standards for
13	MR. OLDFORD: I would have to say no to
14	that, Mr. Chairman.
15	MR. HANNA: Q. In your view could this
16	been done?
17	MR. OLDFORD: A. Yes.
18	Q. In
19	THE CHAIRMAN: In your view would it be
20	useful to do it?
21	MR. OLDFORD: Yes, and it may be done,
22	Mr. Chairman. I have seen and just to elaborate on
23	a point that I made. I have seen booklets produced
24	that list the range of bearing pressures for certain
25	soils under certain conditions, but not so

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1
        comprehensive that I could give a yes answer to your
2
        question, sir.
3
                      MR. GREENWOOD: Mr. Hanna, that type of
4
        information; that is, ground bearing pressure as it
5
        relates to site types, would be extremely specific to a
 6
        localized area, for instance, the Clay Belt of Ontario
 7
        as opposed to another part or another province, say.
8
                      That type of information is currently
 9
        being included in some of the silvicultural groundrules
10
        and management plans in the Clay Belt of Ontario.
11
        Spruce Falls Power and Paper, for instance, does
        include -- the groundrules do include estimates of
12
13
        ground pressure which should be applied on certain
14
        sites in terms of kilopascals, so they are very
        quantitative in this sense. They have also had the
15
16
        information very specific in terms of site as a result
        of the forest eco-system system classification which
17
        have allowed them to do this, to put a specific ground
18
        bearing pressure and attach such to a site which then
19
        can be identified in the field.
20
                      So in terms of agencies which are doing
21
22
        this type of work, I would suggest that that type of
        work is in fact under way in Ontario.
23
                      MR. HANNA: Q. Well, thank you, Mr.
24
25
        Greenwood.
                    Actually I had a question. I was going to
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2	Mr. Oldford's answer I thought the question was
3	unnecessary, but I do appreciate that interjection.
4	I guess it does raise the question then
5	of do you see benefit, Mr. Oldford, Mr. Greenwood, in
6	developing that as a standard process, the standards
7	not being uniform everywhere, but developing guidelines
8	or directions in the silvicultural rules to deal with
9	this issue in all timber management plans?
10	MR. GREENWOOD: A. I think that the
11	question in terms of my evidence-in-chief, I tried
12	to make it clear that the question of compaction and
13	rutting had particular significance in certain parts of
14	Ontario, and the area that I referred to time and again
15	was the Clay Belt area. Outside of that area where the
16	prevalence of those sites that are particularly
17	susceptible to compaction and rutting is not great,
18	then the issue is not as great.
19	Within the Clay Belt of Ontario, the area
20	where sites are quite susceptible where, for instance,
21	season of operation is not the easy way to deal with
22	this issue, such type of prescription would be useful
23	and it is in that area where we are seeing those in the
24	silvicultural groundrules.
25	But to suggest that that should be

ask you if the Ministry is undertaking that and given

1	included in the silvicultural groundrules throughout
2	the timber management plans in all areas of Ontario, I
3	don't know that it would have particular significance
4	in some in a large portion of the area of the
5	undertaking.
6	MR. HYNARD: It certainly wouldn't on my
7	unit. Compaction and rutting is not a significant
8	factor on my unit and the establishment of standards on
9	tire bearing pressure would not have a value.
10	THE CHAIRMAN: Because you would ignore
11	them if there wasn't a problem, right? You would
12	ignore them if there wasn't a problem?
13	MR. HYNARD: I would ignore the
14	standards? Well, if they were
15	THE CHAIRMAN: No, but you wouldn't have
16	to refer to them if it wasn't a problem
17	MR. HYNARD: Exactly.
18	THE CHAIRMAN: on your unit?
19	MR. HANNA: Q. So what you are saying,
20	Mr. Hynard, is that if I was to say to you that the
21	standard was "x" and your normal equipment operated at
22	"y" and "y" was less than "x", it is really irrelevant?
23	I think that is what you are saying.
24	MR. HYNARD: A. I think your question
25	was would it be useful to establish standards, and my

answer was on my unit, no, it wouldn't be useful 1 2 because it's not a problem. O. Are there no organic sites on your 3 4 management unit, Mr. Hynard or Mr. -- yes, Mr. Hynard, 5 I am getting confused? 6 No, not that we operate. 7 All right. Well, let's .deal with the 8 sites in which there are organic sites and clay soils, 9 because I think those are the two sensitive sites. Mr. 10 Greenwood, would you agree with that? MR. GREENWOOD: A. The most sensitive, 11 12 ves. 13 Q. And I presume that you are saying 14 there is two ways to deal with it, one is through 15 season of operation and one is through dealing with the 16 bearing pressure; is that correct? 17 A. Well, I think I listed more than two 18 ways in my evidence-in-chief, but those of two of the 19 ways, correct. 20 Mr. Oldford, I am going back to the 0. question of equipment now again. It's my understanding 21 22 that silvicultural groundrules say these are the types 23 of logging methods that can be used and the three that 24 you have given in your evidence?

MR. OLDFORD: A. Correct.

1	Q. Is there anywhere in the
2	silvicultural groundrules that specifies what types of
3	equipment can be used or vice versa, what can't be
4	used?
5	A. I haven't reviewed a lot of
6	silvicultural groundrules. Those that I have looked at
7	indicate like full-tree logging or tree-length logging,
8	but it doesn't say which can't be used generally.
9	THE CHAIRMAN: If it were a problem to
.0	use a specific piece of equipment and you knew that you
.1	shouldn't be using that equipment on a particular site,
. 2	would that be prescribed in the groundrules in the
.3	negative? In other words, don't use this type of
. 4	equipment?
.5	MR. OLDFORD: I guess it could be, but I
.6	wouldn't see the groundrules as being a place where you
.7	would list all the things that you shouldn't do.
.8	I have a lot of faith in the professional
.9	forester putting forward the positive options and then
:0	dwelling on that rather than the negative alternatives.
:1	MR. GREENWOOD: Mr. Chairman, maybe the
.2	easiest way to deal with this would be to put a
.3	groundrule up that does have some of those topics
.4	spoken to and it would demonstrate I think what we were
.5	trying to suggest could be included in groundrules in

susceptible areas. I have one with me if it would be 1 2 helpful. 3 MR. HANNA: I would be happy to see that. Mr. Greenwood, you will indicate 4 5 where this is from and... the quarterback just went 6 after you. 7 MR. GREENWOOD: A. If I live that long I 8 will. 9 Just so that we have some reference Q. to what plan this is out of and whatever, can you just 10 11 give us -- is this going to be an exhibit, Mr. Chairman? How should we deal with this? I am not sure 12 13 what we are going to see. 14 THE CHAIRMAN: This hasn't been entered 15 before, has it? 16 MR. FREDIN: This is a groundrule which 17 shows -- put it up and maybe I can... 18 MR. GREENWOOD: Yes, these silvicultural 19 groundrules are part -- are included as an example and 20 part of the black spruce silvicultural quide and they 21 are listed in there. These are copies of what is in 22 the black spruce silvicultural quide. 23 MR. FREIDIN: Silvicultural guide for 24 spruce working group?

MR. GREENWOOD: Correct.

1 MR. FREIDIN: Exhibit 382, Mr. Chairman. 2 THE CHAIRMAN: On what page? 3 MR. FREIDIN: Well, there are no page 4 numbers. The appendix -- it's three pages after page 5 85. I think in fact this is the page right after 85, 6 the backside. 7 MR. GREENWOOD: So you will see -- you 8 were wondering -- this is from the Gordon Cousins 9 Forest, an FMA in Kapuskasing, Ontario, so it's within the centrer of the Clay Belt where the susceptible 10 sites are. It's the Table 4.11 which has been referred 11 to and also been shown previously where we have the 12 13 site described, present working group, proposed working group, method of harvest, preferred season of harvest 14 in this particular groundrule which are not in all 15 groundrules, but speak within the Clay Belt 16 specifically to this issue, and so they have added it, 17 and a description of the particular silvicultural 18 19 prescription. I have highlighted the preferred season 20 of harvest specifically for this issue. On this 21 mineral site, where in fact the susceptibility to 22 compaction and rutting would not be great, they are 23 suggesting a summer or a frost-free harvest with 24 specific prescription for silvicultural treatment as 25

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acceptable.
                      In the evidence-in-chief --
 2
                      MR. FREIDIN: And the slide -- that is
 3
        the next one.
 4
5
                      MR. GREENWOOD: This is all Table 5.
                                                             I
 6
        don't have the page numbers, I apologize, from the
 7
        black spruce manual.
8
                      MR. FREIDIN: The next page following, it
9
        is the one that has got ...
10
                      MR. GREENWOOD: I am going to go two
        pages further to where we talk about the organic site.
11
        Organic sites were one of the ones that I described in
12
13
        evidence-in-chief as being susceptible, and you will
14
        notice that the prescription that has been included in
15
        this case is either winter, that is -- and they have
16
        been very specific when the frost is in ground, winter
17
        may start and the frost isn't in the ground yet, or
18
        using low ground pressure machinery, which is what we
19
        are referring to here, with no greater than 24 to 27
20
        kilopascal ground pressure, and in this case they have
21
        also referred to a 10-centimetre imprint.
2.2
                      So that is the amount of imprint that
23
        would be left, and in this case it would be moss,
24
        within the moss after the equipment has travelled over
25
        the site, and also they have referred to the skidding
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1
        distance here or the pattern that would take place.
 2
                      And so they are suggesting skidding or
 3
        forwarding distance less than or equal to 183 metre
 4
        during dry weather only. So this is what I mean in
 5
        terms of adapting the silvicultural groundrules to the
 6
        specific susceptibility of the soils.
 7
                      And in that respect, having included some
 8
        of the topics that you have referred to, Mr. Hanna, the
 9
        ground bearing pressure is specified actual numbers,
10
        they have specified type of equipment, they have
        specified season of operation, or if you don't operate
11
12
        in that season how you would have to modify that
13
        equipment.
14
                      Q. Mr. Greenwood, that has been very
        useful to me and I appreciate that, thank you.
15
                      What I am interested in is -- is this a
16
        requirement, this added column, in terms of -- I
17
        believe the column that it is under is called Preferred
18
        Season of Harvest but it deals with more than just
19
        preferred season of harvest?
20
                      MR. GREENWOOD: A. It is not a required
21
        column. In the actual table within the Crown Timber
22
        Act, 4.11, is a column called Method of Harvest, it
23
        could be included there, it could also bee included
24
        under Silvicultural System as well. There is
25
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another -- there is other columns that that type of 1 2 information could be included under. So you would agree then that in some 3 circumstances, if not in all circumstances, there is 4 5 some value in providing that sort of direction? 6 In this particular circumstance where 7 we know that there is high susceptibility to rutting and compaction, I think it's particularly valuable, 8 9 yes. And if there was situations -- other 10 11 situations than the limited number you have shown here, you are confident that that procedure could deal with 12 13 those situations also? Your question was unclear, I am 14 15 sorry. You will have to repeat it or rephrase it. 16 I am looking at it from the point of 0. 17 view of trying to avoid the types of negative 18 environmental impacts that you have given in your 19 evidence and have been described. And I am looking at 20 in terms of what is an efficient way to deal with this 21 problem to avoid the problem arising? 22 A. Well, again, in my evidence-in-chief 23 I talked about some of the various conditions that 24 would create susceptibility. This particular site

type, the organic site which has high water table and

25

1	which could be considered susceptible most of the time,
2	it would be valuable in order to have this type of
3	information.
4	Now, there are other sites which are not
5	susceptible all of the time, they are susceptible, for
6	instance, after a rain storm and only while the
7	moisture content of the soil is above a certain per
8	cent, and when moisture content drops below it is no
9	longer susceptible. To have a silvicultural groundrule
10	for such a changing condition would be very, very
11	difficult not only to specify, but it would be very
12	difficult to apply.
13	Q. So what I am hearing you saying is
14	that in some sites they are always susceptible, in
15	other sites they are sometimes susceptible?
16	A. And there are other sites which are
17	not susceptible, and that was my evidence-in-chief.
18	Q. Now, the direction you have given us
19	here in terms of the example you have cited, rainfall
20	and changes in site susceptible, the column that
21	referred to preferred season of harvest doesn't really
22	deal with that; does it?
23	A. No, it does not.
24	Q. Mr. Oldford, I am going to ask you
25	one question and I think I will be finished with

1	this witness, Mr. Chairman, and I would suggest after
2	that that we may want to break before we start another
3	witness.
4	THE CHAIRMAN: Very well.
5	MR. HANNA: Q. Mr. Oldford, I want to
6	refer you to Volume 78 of the transcripts on page
7.	13116, and I just want to make sure I understand this,
8	it is just a minor point, to make sure that I am
9	interpreting what you are saying properly and that is,
10	the Chairman asked you a question that said:
11	"It doesn't include the hauling away, it
12	doesn't include after it has been
13	delivered to roadside?"
14	And I just want to make sure that I
15	understand this, that what you are saying is that
16	timber management, as you are using the term, does not
17	include hauling of the wood?
18	MR. OLDFORD: A. Logging methods, as I
19	was using the term, sir, is what I was referring to.
20	The logging methods stops at roadside, really. And I
21	haven't read the preceding
22	Q. Okay, take a moment.
23	Ainterchange.
24	Q. Take a moment and read it.
25	A. Yes, that is what I meant, sir.

1	Q. So I am and it is really a matter
2	of clarification, in your view, then, timber
3	management, with respect to logging at least, ends at
4	the roadside?
5	A. The logging methods have to do with
6	all of the activities from the time the trees are
7	harvested to getting them right to roadside. After
8	that, they are delivered to the mill by truck or rail
9	or
10	Q. I guess the reason I am asking the
11	question is simply: There could be impacts associated
12	with the haulage of the logs; is that correct?
13	A. Yes.
14	Q. Those are not going to be considered,
15	that is all I was really asking?
16	MR. FREIDIN: No. Access is the subject
17	matter of Panel 14. So to the extent there are roads
18	or you move things by water or by rail, those are
19	alternative methods of access and those will be dealt
20	with in Panel 14 and in Panel 15.
21	MR. HANNA: Thank you, Mr. Freidin.
22	Those are my questions, sir.
23	· THE CHAIRMAN: Thank you, Mr. Hanna.
24	Well, ladies and gentlemen, we will adjourn now and
25	return on the 24th, I think we will start at the

1	regular time, 1:00 p.m. And at that time you will
2	continue, Mr. Hanna, with your remaining witnesses on
3	the panel.
4	MR. HANNA: Yes, sir.
5	THE CHAIRMAN: And we will schedule in
6	the interim Mr. Hunter to commence first thing on
7	Thursday.
8	MR. HANNA: I have spoken with Ms.
9	Blastorah and indicated to her that if there is any
10	change I will not go beyond Wednesday night for
11	sure, and I make that
12	THE CHAIRMAN: And should you finish
13	earlier
14	MR. HANNA: I will undertake to let her
15	know so that Mr. Hunter can make alternate arrangements
16	if necessary.
17	THE CHAIRMAN: Please let Mr. Mander know
18	and he will attempt to see if Mr. Hunter can start on
19	Wednesday if possible
20	MR. HANNA: Yes, sir.
21	THE CHAIRMAN:in the event that you
22	finish earlier. We will schedule the next parties
23	through Mr. Mander, if you don't mind.
24	MR. HANNA: Yes, sir.
25	THE CHAIRMAN: Very well.

1	Mr. Freidin?
2	MR. FREIDIN: Mr. Chairman, just some
3	filing, if I might. We had undertaken to provide a
4 ·	copy of a fairly recent forest management agreement.
5	have copies here that I would like to filed and be
6	marked as an exhibit. It is a forest management
7	agreement dated September the 14th, 1988, between the
8	Minister of Natural Resources and Pineland, one word,
9	Pineland Timber Company Limited, limited being in full.
10	So if we could mark that as the next
11	exhibit, Mr. Chairman.
12	THE CHAIRMAN: Exhibit 513.
13	EXHIBIT NO. 513: Copy of FMA between Minister of Natural Resources and Pineland
14	Timber Company Limited, dated September 14, 1988.
15	begoember 11, 1300.
16	MR. FREIDIN: Mr. Chairman, the next
17	document I would like to file you will recall that
18	we undertook to file with the Board, as they were
19	finalized, the silvicultural guides for working groups
20	other than the spruce.
21	I would like to mark as the next exhibit
22	a document, it's entitled: A Silvicultural Guide for
23	the Poplar Working Group in Ontario.
24	I understand that all of the parties

1	I don't know whether the Board has.
2	THE CHAIRMAN: (Nodding negatively)
3	MR. FREIDIN: So can you advise me
4	whether you received copies of this?
5	THE CHAIRMAN: We haven't received it
6	personally, I don't think. I don't know whether Mr.
7	Mander has.
8	MR. FREIDIN: Then I would like to file
9	it as an exhibit and I will give you each your personal
10	copy.
11	THE CHAIRMAN: Exhibit 514.
12	MR. FREIDIN: (Handed)
13	THE CHAIRMAN: Thank you.
14	EXHIBIT NO. 514: Document entitled: A Silvicultural Guide for the Poplar
15	Working Group in Ontario.
16	MR. FREIDIN: I think everybody else has
17	received their copy. If you haven't let me know.
18	And the last document, Mr. Chairman -
19	and, Mr. Greenwood, you may be able to help me with
20	this - this is this document entitled: Soil Survey of
21	Intensive Forest Management Area. It was I think in a
22	brown folder?
23	MR. GREENWOOD: Yes, that's correct.
24	This was the document that contained Appendix 5 which
25	had been appended to the Sherman and McIntosh article

1 which the Chairman requested me to track down. 2 MR. FREIDIN: All right. 3 THE CHAIRMAN: So what title are we going 4 to ... 5 MR. FREIDIN: Well, I think we will give the name of the document. It will be Soil Survey of 6 7 Intensive Forest Management Area, dated January, 1986, 8 and it's a report by Ecological Services for Planning 9 Limited. 10 THE CHAIRMAN: And that contains the appendix to -- the Appendix 5 that was appended to the 11 Sherman article previously; is that right? 12 13 MR. GREENWCOD: That's correct. THE CHAIRMAN: What exhibit was the 14 15 Sherman article? MR. FREIDIN: The Sherman article is in 16 17 the witness statement. THE CHAIRMAN: All right. 18 MR. GREENWOOD: It was referenced in the 19 witness statement starting on page 468. The appendix 20 which is being referred to starts on 496. 21 22 MR. FREIDIN: I am one short on this one, Mr. Chairman. 23 THE CHAIRMAN: That doesn't matter. 24

MR. FREIDIN: (Handed)

25

1	THE CHAIRMAN: We can snare it.
2	EXHIBIT NO. 515: Document entitled: Soil Survey of Intensive Forest Management Area,
3	dated January, 1986.
4	MR. FREIDIN: Those are the only matters
5	I wanted to deal with, Mr. Chairman.
6	THE CHAIRMAN: Very well. We will
7	adjourn for today
8	Thank you.
9	Whereupon the hearing adjourned at 12:55 p.m.,
10	to be reconvened on Monday, April 24th, 1989, commencing at 1:00.
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